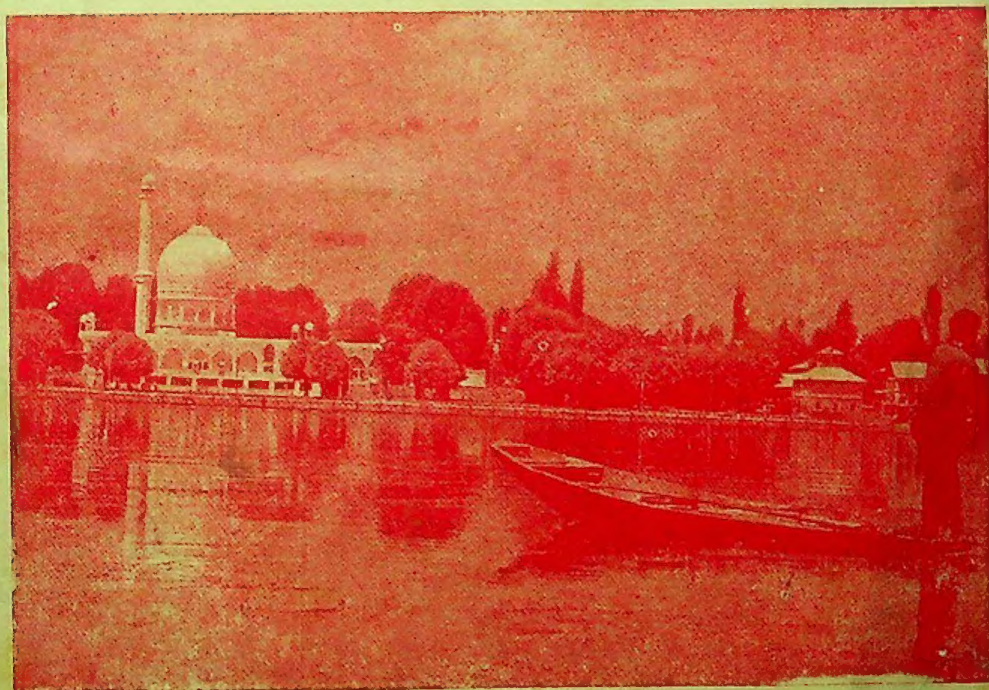


SRINAGAR  
THE  
SUNCITY

11127

WHAT IT SHOULD BE

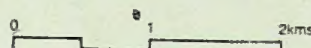
M. A. Fazili





- 1 SHALIMAR BAGH
- 2 NISHAT BAGH
- 3 CHASHMA SHAHI
- 4 PARI MAHAL
- 5 NASIM BAGH
- 6 DILAWAR KHAN BAGH
- 7 SHANKARACHARYA
- 8 PANDRETHAN
- 9 RUINED GATES OF
- 10 AKBAR'S CITY
- 11 AKHUND MULLA SHAH MOSQUE
- 12 HAZRATBAL MOSQUE
- 13 JAMA MASJID
- 14 SHAH HAMADAN MOSQUE
- 15 PATHAR MASJID
- 16 ST. LUKE'S CHURCH
- 17 ALL SAINT'S CHURCH
- 18 CHRISTIAN CEMETERY
- 19 MUSEUM
- 20 SADSHAH'S TOMB

# SRINAGAR





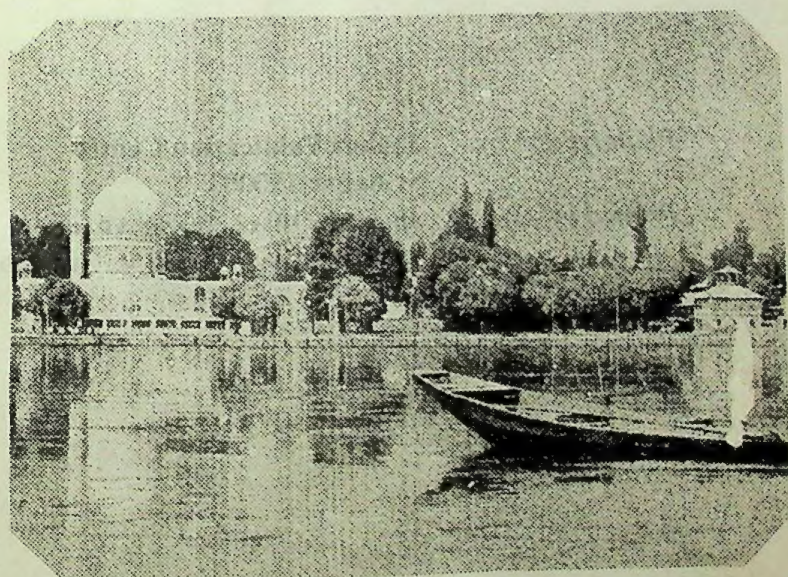
*SRI NAGAR*

*THE*

*SUNCEITY*

WHAT IT SHOULD  
BE

*M. A. Fazili*



**GIVE TO THE WORLD THE BEST YOU HAVE  
AND THE BEST WILL COME BACK TO YOU.**

**YOUR NEW IDEA CAN BE WORTH MORE THAN A  
MILLION DOLLARS PLEASE PASS IT ON.**

**Er. M.A. FAZILI  
BACHPORA SRINAGAR -190011  
KASHMIR**

**Phototypeset by:- Jhelum Publication Centre  
Srinagar-190003.**

**Printed by:- Jhelum Offset Press Anzimar,  
Khanyar Srinagar through Mubasher  
Advertising Agency.**

While going to press, it is heard that Core Area Development Programme of Srinagar City is on the anvil and certain meetings have been held in this connection under the Chairmanship of Divisional Commissioner Kashmir Mr. Mohd Shafi Pandit and ideas have been invited through Newspapers from the locals for passing on to him. This is a bright beam of light, that has fallen at this right juncture of time and we must utilise this opportunity without loss of further time.



*In the name of Allah, the Compassionate the Merciful,  
It was He that gave the Sun his brightness and the moon  
her light, ordaining her phases that you may learn to com-  
pute the seasons and the years. He created them only to  
manifest the Truth. He makes plain His revelations to men  
of understanding.*

*(Quran 10.5)*

*"The Sun of earlier People have set  
and  
Our Sun shall continue to Shine on high  
Horizon and it will never set."  
(Syed Abdul Qadir Jeelani)  
(R.A)*

### THE FIG (AL-TIN)

*In the name of Allah, the Compassionate, the Merciful.  
By the fig, and by the olivel  
By Mount Sinai, and this inviolate land! (ie Mecca)  
We moulded man into a most noble image and in the end  
We shall reduce him to the lowest of low:  
except the believers who do good works, for thier's shall be  
a boundless recompense.  
What, then can after this make you deny the last judge-  
ment Is Allah not the best of judges?*

*(Quran 95 1-8)*

*This is the story of Srinagar, as it ought to be and what is is, as it partly appears in various source material of travellers, observers, historians, geographists, commissioners, academics and also suggestions & ideas invited by CORE AREA DEVELOPMENT SCHEME launched, a few days back by the J&K Govt. It contains ideas that will be of interest to locals, Administrators, Officers, Engineers, Planners, Architects, Doctors, Agriculturists, Jurists, Religionists, Social workers, Politicians, Scholars and all those who are in charge of Development of the Srinagar City (who are planning at least 100 years ahead.)*

*The book is based on a set of papers, presented in various forums from time to time like Institution of Engineers India in Srinagar, National Seminar on Action Sociology in Patna Bihar, Seminar in SMC Activities in Srinagar, Workshop on Conservation of Dal Lake in Srinagar, National Convention on Water Management & in Hilly areas held at Srinagar and a paper on Social Customs of Kashmir and a few suggestions.*

*I am grateful to my friends, and well wishers for encouraging me in publishing this book with a particular reference to Mr. Meraj-ud-Din Artist R/O Soura for his efforts and dedication and shall be obliged to all those readers, who will spare their valuable time to go through it and suggest improvement/corrections if any, for the benefit of the people.*

*I hope that this book shall be enjoyed by tourists, travellers and citizens, cherishing welfare of inhabitants and tourists pouring from the country and from the foreign countries round the globe.*



# CONTENTS

A set of papers presented  
by

**Er. Mohammad Ashraf Fazili**

**B.E. HONS. C.ENG. (I) F.I.E, M.I.R.C., M.N.G.S. (USA)**

*in various forums like*

- 1) Institution of Engineers on annual day on 17th June 1986
- 2) Workshop on Dal Lake held at Srinagar in Oct, 1983
- 3) National seminar on action sociology in India held at Patna on 28 -30th July 1986.
- 4) National Convention of Agricultural Engineers held at Srinagar on June 1989 etc

- (I) **Environmental Improvement In J&K State, problems & solutions.**
- (II) **Suggestions for general developement of Srinagar city & other towns with stress on circular road & sanitation.**
- (III) **Suggestions In seminar on SMC on 19.11.1983.**
- (IV) **Recommendations made in workshop on conservation of Dal Lake held by Department of Environment New Delhi in Kashmir University on 15 - 18th Oct. 1983.**
- (V) **Miscellaneous points.**
- (VI) **Dal Lake Development and Pollution of water bodies.**
- (VII) **Environmental Development and Peace INST. OF ENGRS. (17.6.1986)**
- (VIII) **Action Sociology, Background & Problems In Kashmir.**
- (IX) **The concept of Action Sociology, National Seminar on Action Sociology in India (Patna) July 1986.**
- (X) **Suggestions put forth on Action Sociology**
- (XI) **Social Customs In Kashmir.**
- (XII) **Clean Environment through Pour Flush/Latrine.**
- (XIII) **Water Management for hill Agriculture in Kashmir.**



# *Environmental Consideration for Urban Development*

*Environmental improvement in J&K. STATE  
Problems and solutions.*

Do you not see how Allah has subjected to you all that the heavens and the earth contain and lavished on you both His visible and unseen favours? Yet some would argue about Allah without knowledge or guidance or illuminating scriptures.

*(Quran 31:205)*

Do not corrupt earth after it has been purged of evil. Pray to Him with fear and hope; His mercy is within reach of the righteous.

*(Quran 7:56)*

Imam Ragib R.A states that the meaning of clearing the earth can be explained in two ways. Firstly the external cleaning i.e; earth can grow crops and trees, It can bear flowers and fruit after rainfall from clouds and every necessity for sustaining comfort of life have been provided from earth.

Secondly the earth has been set right spiritually i.e; Prophets, Books and Instructions have been sent on it to clear it of evil and to arrest people from going astray and this ayat can mean both the things. Thus Allah has sent right earth physically and spiritually. Now you do not spoil it by sins and by dis-respecting the law and don't create pollution and catastrophe.

Allah has made this earth in such a manner that there are things as soft as water, where nothing can stand, nor ~~other~~ as hard as iron, which could not be dug. It is midway, so that man can sow crops, trees, fruits, flowers and dig wells, trenches, canals, construct strong foundations for houses and then inside and outside this earth there are provisions, by which the creation on this earth is possible i.e; vegetables, trees, fruits, flowers can grow. On out-

side air, light, heat, cold has been created. And then clouds bring rain by which trees grow, the hot and cold rays from celestial bodies like Sun, Moon, Stars help in giving various colours to flowers and fruit; and man was provided with intellect and power of thinking what is right and what is wrong, by which he utilised the mines extracted from earth like iron, copper, brass, aluminium, wood and a new world was created by blending these materials. This is external arrangement of earth which God made by His absolute power. The purpose of all this is comfort for man. His worries should be over and his diseases should be cured, but when we see man is still worried, inspite of all these provisions men are loaded with worries and diseases and new catastrophe. No one seems to be contented, why? Man is overpowered by electricity, steam and other forms and terms of pollution because we dis-obeyed Almighty.

God has freely gifted us a specimen of paradise in this very life, perhaps this is the reason that we have been careless in preserving it and our past efforts have been directed in such a manner that we may lose this paradise in this very life.

If we turn the pages of history and also listen from our elders and even notice the changes in environment that have taken place in our very life-times, we can realise that a silent continuous deterioration of environment is in process.

Kashmir claimed to have the purest water, air, silence, mental and spiritual purity from the dawn of its existence.

If we examine the present drinking water, tourists, bring bottled water for their use. I was told recently by an Englishman who happened to be an Engineer that Kashmir is famous outside for its tourist spots, but there is lot of propaganda against its drinking water and also against the polluted water of lakes, rivers and streams.

God gave us Dal Lake, the precious jewel and what we made of it, can be physically observed on seeing/smelling Brari Nambal Mini Lake which is a part of Dal Lake, and the sewage, sullage and factory wastes of about a lakh of people is flowing to Dal Lake through this very Mini Lake. This is a glaring example, disproving the claim of certain people, that nature will take its own care to maintain ecological balance, as we have seen that all aquatic



life has vanished in this Mini Lake during the past few years and the menace is striking at the doors of human and other animal life now. Similar is the case of other water bodies like River Jhelum and other streams and lakes. Although all lakes are destined to die one day, yet it seems that we are hastening their death by our deliberate carelessness.

The fresh water lakes have the maximum contribution towards maintaining healthy environment of our valley. Their water, we use for drinking, washing, bathing purposes and also for irrigating and development of pisi-culture etc.

The Health Department is of the opinion that major contributor to the common diseases of the people of this state is polluted water. Some studies made by U.E.E.D regarding water chemistry of Dal Lake have given alarming results.

Although Govt. has taken steps to relieve the situation, yet the pace of retrieving is slower than of the speedy deterioration that is taking place. This is primarily due to the financial constraints. Projects of Dal Lake Development or Swerage and Drainage of Srinagar and Jammu Cities are going on at a snails pace, as the present pace of availability of meagre funds may never lead us to counter environmental disaster.

We needed Rupees 62 (Sixty two) Crores for Dal Development and Rs. 118 (One hundred and eighteen) Crores and Rs. 64 (Sixty four) Crores for Sewerage and Drainage Schemes of Srinagar and Jammu Cities respectively. The present provision of Rs. 2-3 Crore per year shall mean that not less than 200 years are required for completion of the project, keeping escalation in mind and by that time the lake would have died and the then population explosion or may be its annihilation, would have created a catastrophe. But we all think that we shall not be there to see that state of affairs then. Let the people existing, if any, then, fight it out themselves and also send blessings to their fore-fathers, thinking that they were not able to fight against this evil called environmental pollution. As we have replaced the race before us, we shall also be replaced by another race, that is following us, so why to bother? In this connection I have a suggestion that efforts for adoption of Low Cost Sanitation methods as interim measure,

need to be expedited with the assistance of UNICEF UNDP. A world Bank team who have visited here some time back, had stated that assistance from World Bank can come provided a request is forwarded to them which is pending with the Central Govt. and needs to be pursued. In this connection I may cite example of Punjab, where tremendous development has been made in low cost sanitation with the help of World Bank and UNICEF.

A team of M.P's from Delhi who had visited the state some-time back had suggested to pose the *Dal Lake Project for assistance to UNESCO*, who are already assisting such projects round the Globe. The justification being that the Dal Lake and its surroundings are of tremendous scenic and historical importance and need to be preserved at all costs. This aspect of its historical and scenic importance has been brought out by me in a 100 page paper, presented in Natioal Workshop held in Kashmir University in collaboration with Department of Enviornment, Government of Inida in October, 1983.

Nature has bestowed us with purest breeze that would often cure sick people and also stimulate spiritual experience/experiences. Traces of this breeze can still be seen and felt, when we go on the top of Shankaracharya Hill. But when we go to the interior of the City or to the Brari Numbal Lake, we can experience the dust and also the foul smell and we can foretell, how Kashmir will smell from Shankaracharya top in the very near future.

Similarly the serenity and peacefull atmosphere is disturbed by the noise of mechanical transport, factories and high pitched radio programmes both in buses and in shops etc. Although some action has been initiated by UEED in this direction, but vigorous action is required to check the menace for which a multi-disciplinary action through various departments for enforcement and motivating people is required to be taken. Here I would add that generally people least realise that how much a non-smoker gets troubled with the smell and smoke when a smoker smokes in the bus; besides damaging the nylon fibred clothes of his co-passangers. On objecting you may receive a shoe beating.

Murals, pamphlets and posters with "pictures only speaking," already printed by UEED need to be further circulated and pasted



at prominent spots. In this task vigorous participation of Home Science Institute and other publicity media shall prove usefull to motivate people.

There is mental, moral, intellectual and spiritual pollution responsible for all the pollution of environment for which education system needs to be re-oriented laying stress on realization of our duties towards our fellow-beings and other surroundings, for which all religions are unanimous in stressing to respect nature, so that we would be saved from disaster. In this connection I had suggested the UNICEF that they should get translated into English, Urdu and Hindi the *masterpiece of Sheikh Sadi Shirazi, The Gulistan and Bostan*, which was being taught in primary education to the children in Kashmir to make them responsible human beings.

Enclosed are some suggestions which have been already submitted/circulated in the workshop on conservation of Dal Lake in Kashmir University and seminar on SMC in Oct. 1983, Annexure (I, II, III) (year before last year) and also Annexure 4 contains some new suggestions for environmental considerations for Urban Development and the same need to be submitted to the Government with a strong recommendation for immediate consideration, before we loose the train for which we shall be answerable before the Almighty Allah.



16. The simple but elegantly proportioned Fatih Mosque in Saray, built by Nur Iahan.



17. One of the terraces of the Fatih Mosque in Saray, built by Nur Iahan.



## *Suggestion for general development of Srinagar City and towns with, stress on circular road and sanitation.*

### **1. Circular road.**

1.1 There is a virgin, inviting, suitable land between Buchpora Ganderbal road and either side of Hazratbal-Nagabal (Pandach) road and also on the outskirts of the present Srinagar city and on foot of hills, which is bound to fall prey to the people migrating from city and other towns in the same unplanned and haphazard manner as has been in the case of Buchpora Colony and other areas where some of the new settlers have no direct approach from the main road, not to talk of access to other public conveniences like drainage, sewerage etc.

1.2 Future progeny is bound to curse us for having allowed this unplanned growth of city extension when a new city of Srinagar could be planned / constructed without disturbing the existing one, as has been the practice in Delhi and other metropolitan cities or in other foreign countries and when housing accommodation for various economic categories of people would be made ready with provision of all public conveniences, the only thing left to do was to call the person getting dislocated, takeover his old house, adjust the compensation payable to him with cost of new house, recover the balance amount if any due from him in easy instalments, of course guarded by proper required guarantees, agreement.

1.3 This would facilitate and also dispense with the abuses that are prayed by the present day uprooted people, who besides facing the herculian task of construction of a new house, while himself having shifted to a rented house or tent, is shocked to find no public conveniences, for which he has to calmour, besides having

received a shock on his sentimental detachment from his ancestral birth place, neighbours, friends and relatives. This aspect gives rise to more sentimental, psychological, emotional problems, as we have been observing; when we make a case study of any individual uprooted, one can easily listen the music of the effected person.

1.4 In the case of shrinking land for future development of the housing colonies, we could foresee our requirements for a hundred years ahead and plan besides horizontal, vertical developments of the city. With due consideration for the habits, social customs and requirements of privacy. Assistance in the form of grants and loans can be obtained on request from World Bank and other international and national funding agencies like HUDCO for the purpose.

## 2. Sanitation.

2.1 Sanitation aspect has to be laid stress upon in every existing and developing habitation. For this purpose assistance is available from UNDP, UNICEF and Central Govt. under various schemes, which need to be tapped with persuasion, without losing time, which is running out. Demand for Dal Lake Project and Srinagar Sewerage Sub-Project for Rs. 62 crors and Rs. 14 crors respectively has been already lying with Central Government for a pretty long time.

2.2 Solid wastes i.e. garbage can be utilized for conversion into fuel briquettes and other gases/liquid by-products even electricity for which very cheap schemes have been developed.

2.3 Every house ( except rich people who can afford high cost must have a lowcost sanitary unit, which can be constructed within Rs. 2000/- to 2500/- including sub-structure and superstructure, for which assistance is already available and funds already provided by UNICEF, they are prepared to finance further provided we are able to spend fast.

2.4 Publicity and motivation of people for the same had been initiated by UEED, but the same needs to be geared up involving all disciplines like, Information, Health, Social Welfare, Home Science Institute, UEED, PHE Department and Local Bodies etc.

2.5 Covered solid waste pits be excavated by the house owners



in their compounds to dispose of garbage, which becomes compost in course of time. Demonstration unit stands already constructed by UEED in Tankipora area.

2.6 Demonstration units for sanitary latrine have been already constructed in Srinagar city and in towns like Anantnag, Pulwama, Shopian, Mattan, Bijbehara, Pampore, Sopore, Baramullah, Bandipore and Badgam by UEED and need to be publicised for adoption by public. The mass conversion of a few areas in city has also been done and is in progress.

2.7 600 kanals of Numbal land on Idgah Sangam road are already acquired by SMC for dumping the city refuse/garbage using Sanitary Land fill method, to relieve the city of the nuisance and also improvement of collection system has to be ensured with increasing of manpower/equipment with effective supervision as per I.S.I. Standards.

2.8 Existing community latrines of Srinagar City be got improved and new ones constructed and maintained by any agency on the same lines as are being constructed and maintained by *Sulabh International of Patna*, for which the later had agreed to construct and maintain for demonstration of S.M.C. two latrines at Partab Park and at Pologround in front of Grindlays Bank in Srinagar City. Nothing is known what happened to that proposal. Perhaps it has breathed its last, since.

2.9 It was suggested that Pilot project for low cost sanitation for two sectors of Srinagar City be got expedited preferably through Sulabh International Patna at initial stage and by local agencies for the remaining areas of Srinagar City. In this connection schemes under "*Scavenging Elimination Programme*" and "*Integrated development of Small and Medium Towns*" are invited by UNDP through Central Government with their assistance and action for formulation of these schemes for Urban areas has been already initiated by UEED and similar action could be taken for rural areas by PHE Department who are looking after the same.

2.10. Various towns can be provided with mini schemes of conversion of solid wastes/garbage into fuel briquettes/ Gas.

2.11. People particularly children need to be educated for improvement of Sanitation habits like use of soap after every use of toilet

and before taking meals etc., through coordinated efforts of various disciplines, particularly Institute of Home Science, Health Department, Social Welfare, UEED, PHED, Local Bodies including S.M.C, N.A. Committees and T.A.Cs, Information Department, Radio, T.V and Press Media etc. I had suggested to UNICEF to distribute soap cakes to children in schools with a statutory warning on their cover indicating that *"Germs feed / generate on dirt."*

2.12. The propagation of ill effects of insanitary conditions causing pollution could be made through educational and religious institutions, if people's attention is drawn towards this and already there is sufficient stress laid in religious books on environmental sanitation, whereby people would adopt the low cost methods.

3. The following legislation be passed under Town Planning/Development Act.

3.1. Outlets of latrines be stopped and not allowed into the public drains, for which a fine of Rs. 100/- per day should be charged from defaulters, of course advising them alternative low cost sanitary arrangement for disposal of night soil and also for garbage disposal.

3.2 To avoid parking menace etc. construction of shops along road sides be banned forthwith, instead shopping centres be constructed at various pre-identified spots, for which acquisition of land/ structures be done and shopping activities be confined to that particular area only. The existing shopkeeper abutting roads be made to shift there in a phased manner.

3.3 All service stations and automobile workshops be shifted to Tatoo Ground (SMC/ Govt. Land) or some other convenient place to avoid nuisance.

4. In various areas, Children parks be constructed in a planned manner to avoid accidents as the children are playing on roads at present.

5. Biogas plants be got set up in the out-skirts of Srinagar City and other towns and developing colonies. Funds for the purpose upto Rs. 2.00 lakhs were lying idle with Department of Environment. Central assistance is also available for the purpose and needs to be tapped. Survey for Buchpora, Malroo, Pampore villages is



already completed by UEED for the installation of the same.

6.1 Smokeless chulas be publicised among rural areas and towns and demonstrations units be got installed. UNICEF is assisting in this also. The specimen with suggested modifications already available in the Agricultural Workshop at Shalimar, where Mr. Hakak Engineer I/C has cooperated with me to make the chulas more efficient after suggesting certain modifications.

6.2 Smokeless chulas with some modifications suggested can be propagated. Paru stove using rice husk (repeatedly) can be propagated among rural areas including the tiffin carrier which cooks also. Both of these things are reported being manufactured by Agricultural Work shop at Shalimar.

7. Water pollution Control Board be activated. This is existing on paper and has never met even for first the time since its birth.

8. Measures for control of Air/Noise pollution be taken as it is very easy now than later, when it will be too late.

9.1. Development of peripheral roads around Srinagar City be got expedited and funds be got made available for the same. The existing arteries like Dalgate-Buchpora road be also widened in a phased manner with provision for footpaths and their affective side drainage and their prompt maintenance be ensured.

9.2. After providing alternate accommodation, the dislocated house owners be persuaded to handover the possession at short notice or otherwise sufficient compensation be paid to enable the families thus dislocated to build their houses on the plots allotted to them.

9.3. Independent Dal Development Authority (DDA) be set up as recommended by recent Seminar or Dal Lake held by Kashmir University, which should be free from all interferences and equipped with all necessary wings like, revenue, legal, planning, executive and administrative etc.

9.4 For stopping encroachment on Govt. land along road sides, Circular road Project be provided with a separate Executive Magistrate and dismantling squad as S.M.C. has been too busy in other affairs/pressures and close coordination of this department with Police assistance available at short notice be ensured, however, recently, in the present set up there has been a very noticeable improvement in this direction and we must appreciate the work

done by SMC and Police Department in cooperation with Circular Road Authority-dismantling certain structures of defaulters although much remains yet to be done.

9.5 Preparation of Zonal plans of all areas of the city, towns which is a follow up action to Master Plan preparation, should be got expeditiously prepared/circulated/implemented.

9.6 Electric Power and Sanitation and road projects be given top, most priority. All other development like building etc can wait, but silent damage to peoples health by environmental pollution and inadequate approaches, dark winter nights and thereby slow development of areas cannot be allowed to continue at the present pace.

9.7 Implementaion of Town Planning Act/Development Act/Municipal Act along with rules be got ensured in letter and spirit by the resepective organisations, who need to be equipped properly for the same.

9.8 *Time wasted in lengthy meetings be got avoided.* Instead the time be got utilized in action, of course a *think tank* has also to be established to provide proper direction.

9.9 Existing drainage system to be maintained effectively, with proper supervision and new drainage system be taken up in a phased manner.

Dood Ganga Scheme with a trunk drain will drain out entire drainage of adjacent area with a lift station at its tail relieving all other involved lift stations. Let the mistake committed in Nallah Mar be not repeated here.

9.10 Greenery be developed every-where, where there is a naked strip of land available on either side of road and also on surfaces of compound walling and other structures where aromatic good scented/smelling, ornamental, flowering creepers can overlap the exposed masonry surface, of course imposing ban on the movement of animals like cows, bulls etc.

9.11 Use of coal briquettes in stoves for heating purposes by offices in winter months must be *got stopped at once* to hold people from falling prey to lung diseases, as poisenous gases like carbon monoxide etc. are emitted from the stoves, using these briquettes supplied by Shalteng Factory.

9.12.Engincer's and other officer's valuable time should not be



got wasted in gossips and playing pastime games during office hours when their services are required some where else , also for the benefit of people whose cases otherwise get delayed or denied and this breeds corruption.

9.13. Anticorruption/Vigilance Organisation should be corrective rather than coercive, for which immediate steps need to be taken.

9.14. A cell, collecting information from people/regarding their suggestions for improvement of various activities of Govt. be set up. The data bank be established to be taken advantage off, while planning/correting/revising the measures/policies of Govtt. from time to time.

9.15. A review of various major projects like Dal Development project and Circular Road etc. be taken and corrective measures if possible at this point of time be taken into account at once.

9.16. Enviornmental aspect be taken into account in all projects in hand or those to be taken in hand.

10.1. Advisory Committee be set up comprising of Retired Engineers and Administrators and also those in service to suggest proper action for Government and ensure implementaion of recommendations, thus made.

11.1. There is basically moral, mental and intellecual pollution which are the basic cause of all pollutions for which educational authorities and other institutions shall have to orient instructions to School/College Students and common people, towards, healthy, moral education, which is absolutely lacking in the present setup.

12.1. The deputation to the various conferences, trainings, courses, inside and outside the country to be done promptly and suitable persons be deputed, may be from other disciplines, to have exchange of ideas/thoughts.

13.1. Lakes that are dead, dying, sick can be revived. Project for Development of Nigin Lake, Anchar Lake, Manasbal Lake, Khushal Sar, Gil Sar, Wullar Lake could be got prepared and taken up in a phased manner. Some preliminary projecting work has been done by UEED on Nigin Lake, Anchar Lake, Mansbal Lake and Wullar Lake. With the loss of these lakes, Kashmir shall be losing tourism-the back-bone of its economy.

14.1. Man power planning be got done for employing suitable man for suitable job.



16. A view of the Dal lake and Hari Parbat hill, c. 1886, watercolour by Mary Popham Blyth  
(Courtesy India Office Library)



17. Peaceful Nagin lake in the early years of this century. This watercolour was done  
by Brigid Keenan's grandfather.



### III

## *Suggestions on various points raised in the seminar on SMC. on 19th Oct. 1983.*

1. Surface drains on either side of the existing roads like Khanyar to Soura and Rambagh to Chanapora are mostly kacha and are a breeding place for flies and mosquitos and pathogenic bacteria, present an unsightly look with unbearable fowl smell. The passers-by have to shut their eyes and close their nostrills on seeing foul smelling drains. Early attention is invited towards improvement of these drains. This may be under the charge of R&B Department even.
2. Scavengers be asked to clean ghats of rivers and lakes from the night soil being littered every morning by the boat owners and local inhabitants.
3. Construction of new Doonga's be got stopped forth with though they provide a very ancient and monumental look to the dirty surroundings and are at the same time nuisance, as these obstruct flow of water and also solid and liquid wastes of these boats find their way direct into these very water bodies in which these are stationed.
4. Our children play on the roads and on lands bordered by unhygienically maintained drains, carrying night soil, which these children carry sticking to their feet into the houses and even handle dirty balls and thus invite diseases.
5. Widening of existing trunk roads like Bachpora-Soura-Dalgate and Rambagh-Chanapora, Bachpora-Habak roads be taken in hand on top most priority as lot of time of people is wasted and also frequent accidents take place. It would be proper if the matter is given a serious thought and widening of roads is taken in hand in a phased manner. In the last named road mostly land acqui-

sition only is involved, which is getting urbanised fast.

6. Ignorant common people need to be educated on a mass scale regarding the ill-effects of the polluted environment, which they can keep clean to a large extent themselves. In this connection all concerned disciplines like Health, Information, Institute of Home Science, Law Department, police Department, Local Self Govt. Town Planning Organisation SMC, UEED, must coordinate their activities and frame a joint programme and define a clear line of action and ensure its implementation in letter and spirit.

7. Building permissions must incorporate the condition that a sanitary pit latrine and solid waste pit should be constructed side by side along with the building or otherwise they would deposit a sum of Rs. 2500/= to Rs. 3000/= with SMC, so that they construct these for the house owner.

8. Side by side of laying hands on Saidpora dumping site (600 kanals of Government land) improvement of collection system of Garbage, funds for acquiring 80 to 90 kanals land at Noor bagh for compost plant has been considerably got delayed, with the result that the cost of compost plant has got escalated from Rs. 1.50 crores to Rs. 5 crores during past so many years, just because land could not be provided, neither funds have been provided to SMC for this purpose.

9. We have become so immune to polluted water and adulterated food that if we are provided clean water and unadulterated food we are likely to fall ill. Instances are when Nalla Mar people got shifted to Soura, most of people fell sick. The people in Malroo Village near Shalteng prefer use of river water for drinking, as the tap water makes them sick, as stated by them during a survey conducted by me for installation of a biogas plant in the area.

10. There is high and dry land on Buchpora Ganderbal road and on Habak side, where land can be acquired immediately and roads developed, the plots can be sold by the owners themselves or otherwise have a housing corporation, who can construct single and double storeyed houses and provide the same to the people on easy instalments, for which loans from HUDCO are available on request.

11. Moral education is most important, if we want to improve our environment. People will immediately keep their environment clean



once you tell them to do that.

12. You can convert solid wastes into briquettes by decarbonization at low cost and this will also solve fuel problem during winter for which we are very hungry.

13. Urinals be provided on important roads at vulnerable spots as our tourists and pedestrians are facing considerable difficulties. The disposal of urine may not be made into drain but into soakage pits, the design of which is already evolved and available with UEED.

14. One community latrine for demonstration was constructed by UEED in SMHS Hospital at a cost of Rs. 0.75 lakhs but the same is suffering for want of maintenance.

15. Construction of drains is easy but it is a job to maintain these and most of our existing drainage is suffering because of poor and inadequate maintenance.

16. Law and order problem gives birth to a project so is the Dal project.

17. Whenever a new colony comes up, please keep road level at least 6" to 1 foot lower than the adjacent plot level so that there is no drainage problem of the plots later on.

18. Various acts like Development Act and Town Planning Act are existing there, but proper implementation is wanting.

19. SMC be strengthened, like Delhi Municipal Corporation who are maintaining Roads, Drains, Water Supply, Sewerage and Drainage, Electricity and other services and so be strengthened the S D A like D D A.

20. Lung spaces are being eaten up. Please guard against this inhuman act, otherwise future progeny will curse us and as will do the Almighty for not being thankful to him.

21. Circular roads should not give rise to close shoppings, which is against the Town Planning Act, this should be enforced at once. These lead to accidents, obstruction to traffic and also dust pollution of streets and also becomes a nuisance.

22. Open Bemina Numbal area should be converted to vegetable growing area at once, to cater for vegetable needs of the city, instead of importing it from Jammu and Punjab.

23. World Bank team had come. They are going to finance Sanitation schemes provided request goes to them.

24. Saint Mukhdoom Sahib (R.A) once asked his deciple Baba Davood Khaki (R.A) (Resigned Chief Justice) (Qazi-ul-Quza) to get the worst thing, on, having repented for divorcing his wealth. The later searched for it and thought nightsoil is the worst thing. Soon came the reply I was on your dinning table only four hours back and that time you honoured me. It is you only who made me, what you see I am now and thereafter he presented himself (worst thing) to the saint and that is the *man*.

25. Mosques and temples can be best centres for education as maximum stress has been laid on the sanitation in the religious books.

26. What Americans reportedly do for removal of houses for projects is that they give one month's notice and pay double compensation and by-pass court stay, if ever such an occasion arises. This may not be possible in our case.

27. Remove service Stations outside Animal Husbandary Deptt. and locate them at Tatoo Ground near Bus Stand.

28. Let us put in practice what we say. Which our people, leaders and religious heads rarely do.

29. Air, Dust and Noise pollution should be attend to on top priority.

30. Pollution control board should be activited which has never met since its birth.

31. To avoid dust pollution on roads, the katcha exposed surface can be got turfed wherever suitable/possible and the buildings can be got enveloped by flower bearing and good smelling scented creepers, like honey-suckle etc.

32. Fire stations and fire hydrants need to be relocated suitably at vulnerable spots having easy access and mobility with sufficient space for parking, movement and turning of the vehicles without obstructions or delay and also to ensure availability of water at shortest notice.

33. Street lighting & its constant maintenance needs to be attended to.

34. Street dogs are a continuous menace.

*Recommendations made in the workshop on conservation of Dal Lake, (Kashmir University, On 15-18 Oct. 1983.)*

1. Speedy completion of settling basin, construction of garland Sewer/catch water drain around the lake area to arrest inflow to be supplemented with economical treatment, like oxidation ponds etc. and only safe, silt free and nutrient free water be allowed into the lake.
2. Have garland Sewer/catch water drain around Nigin Lake with a pedestrain mall with green turf, arresting the sewage and drainage of the peripheral area and allow only treated effluent, safe for the disposal into the lake.
3. Do not resort to the crimes of hastening the death of lake by dumping solid wastes and earth filling. Instead of construction of highway, which is bound to lead to urbanisation, construct bunds with pedestrain malls if necessary, otherwise abandon the same.
4. Instead of constructing new roads, widen the existing road taking off at Dalgate and passing through Saidakadal, Habak, Shalimar, Nishat, Convention Complex, Nehru Park and back to Dalgate.
5. For the filling that stands already carried out for the construction of Northern and Western Foreshore Roads, explore the possibility of converting the filled area into recreational spots, or if it has to remain as a road, Ist the Government should ensure that it will not allow shylocks to purchase adjacent lands and construct pollution contribution centres or if this too is unavoidable provide the required services well before hand.
6. Do not disturb the natural panorama of surroundings by mass felling of trees. Instead we must respect nature to invite our respect.
8. Pass and implement effectively an ordinance against dropping



of harmful liquid and solid wastes directly or indirectly into the lake.

9. Remove and stop further encroachments inside and around the lake. Speedily rehabilitate the dislocated population suitably.

10. Provide speedy services for solid waste disposal and sewerage scheme for house boats and for habitation on the lake periphery.

11. Provide speedily a cut linking Brari Numbal with River Jehlum at Habbakakal, thus reviving the earlier position that existed before construction of Nallah Mar by Budshah.

12. Have a strong body equipped with legal powers to deal with offenders and ensure no political or other interference to preserve the life sustaining lake.

13. Expose the project to the team of experts, of all involved disciplines (senior/juniors) to obtain their views/ recommendations and implement the same after screening all alternatives-

14. Take advantage of time at hand, so that our own conscience and also our future progeny does not abuse us and Nature also remains pleased with us and rewards us with a worthy reward of a long life for this emerald lake.

15. Part of the Dal Lake called Nigin Lake is live, the rest of the lake is getting sick, Brari Nambal is breathing its last and Anchar Lake is almost dead. Let us make efforts to preserve the live Nigin Lake, before it goes sick, treat the sickness of the Lake Dal, revive Brari Nambal and allow Anchar Lake to die its own death, of course due to financial constraints, which otherwise has a potential for part revival.

16. Develop grass carp for the control of Weed growth.

17. Have a Coordinating Committee/Department to coordinate activities of various departments involved in preservation of Dal Lake and other water bodies of the J&K State.

18. Have yearly seminars for taking a review and also exchange of latest technology on the subject.

19. Pose the project for UNESCO assistance as the lake itself and its surroundings are of tremendous scenic and historical importance and UNESCO is already assisting such projects around the globe.

## MISCELLANEOUS POINTS

1. Traffic system in Srinagar City needs to be reviewed afresh. It takes one hour to cover a distance of 11 Kms from Lal Chowk to Buchpora having about forty bus stops to be chosen by Driver on his own will, where the bus detains for about a minute at each stop and travelling time is only twenty minutes. We must learn from Delhi & Bangalore about running of buses.
2. Providing of public facilities like, post offices, Schools, Parks etc. are necessary in newly developed/developing areas, which have come up in an unplanned manner, of course by abusing the Master Plan.
3. Tongas and hand carts plying on left bank of Habba Kadal upto Zaindar Mohalla and other routes are a great menace and cause delay of traffic for hours together and are cause of frequent fatal accidents. Although plying of tongas on other roads has been stopped, this menace continues on left bank. It is suggested that the Tonga Drivers be given bank loans for purchase of Autos and their licence be issued or they be shifted to village roads or otherwise a separate lane be provided exclusively for tongas, carts etc.
4. Automobile repair shops on the roads from Auqaf Building and Budshah Chowk via Animal Husbandry Deptt. to Telegraph Exchange be got removed to Bus Stand Batmallo, as the buses plying through this road have to move slowly and even stop for hours together. The entry to General City Bus Stand also lies on the same road and the entire bus traffic also has been recently diverted through this road. Transport yards are in very bad shape & mismanagement.
5. There has been a general practice during the past so many years that shopkeepers make projections at floor level, and also on roof level unauthorisedly towards road side and then fix shutters on projections, with the result that most of the interior roads of city have

got squeezed to bare minimum. The S.M.C. has been imposing a petty fine on these encroachments. It is suggested that all such encroachments be got removed forthwith and no such projection be allowed on the roads. This has also resulted into blockage of surface drains, which cannot be cleaned by Scavengers, being underneath the projection and also unapproachable footpath hawkers are also an unchecked menace.

6. The area abutting the great circular fort wall around Haripar-bath Hillock was the cleanest turfed green spot just a few years back. This has been allowed to be usurped by Scavengers who have constructed their huts all around outside/inside the wall with the result that their entire drainage water is stagnated on Western side i.e. behind Hawal form Sangeen Darwaza to Bachi Darwaza (outside the wall) and also on Northern side (outside the wall) from the Ziarat Baha-ud-Din Ganj Baksh to Kathi Darwaza. It is requested that a visit be made to the spot and the Scavengers be got replaced somewhere in a planned colony. We have destroyed the sacred surroundings including disrespecting our ancestral Grave Yards around the Fort Wall and also destroying the greenery. The Fort Wall needs to be repaired, being of a great historical importance as it was built by Akbar the Great Mughal King of India, on food for work programme.

7.1 A number of monuments are being devoured by the churning time, and we may be losing some of the precious legacies of our ancestors which are in the shape of monuments and Graveyards.

7.2 A glaring example is the tomb of great historian of Kashmir *Khawaja Azam Dedamari* located outside the Ziarat of Kh. Baha-ud-Din on its Southern side. The surrounding land of this tomb though Graveyard and marked in revenue records as property of followers of Islam, Filth and draingae is seeping into the abutting graves including that of the Great Historian. The area needs to be got cleaned of the encroachments and the monument well preserved, being the hertiage of Kashmiris. So is the case of Maqbara Salatin, tombs of emperors inside the premises of Khawaja-Baha-ud-Din Ganj Baksh.

7.3 Similarly historic tomb of great saints located on either side of the Zoonimar-Bagh-Ali Mardan road and various other impor-



tant spots has fallen prey to encroachments and needs to be got preserved by way of construction of edge walling and fencing. There are many such sacred spots, which need to be got preserved 'as *sentimental and religious attachments of people are involved with these.*

8. Most of the Auto, Mini Bus, Bus, Taxi Drivers though even educated behave rudely with the passengers and care least about pedestrains and charge more than what is their due. They also do not honour the traffic rules, with the result that it has become dangerous for pedestrains and vehicles to move about safely. It is requested that suitable measures be taken to ensure their good behaviour and also metered rates. Mini Bus seats are painful to accomodate adults and are fit for children only. Who passes these?

9. The main contributor for moral degradation has been the obscene scenes of the cinema. Although it is a country wide phenomenon, being due to the fact that the major domo of the film industry have in their minds the financial interest as their uppermost aim, and can go to any extent to attract masses even at the cost of the later ethnic values. It is requested that the matter be taken up with concerned authorities and avoid obscene posters, literature, film scenes. Kashmir has been hit hard in this respect as our women have been mostly clad in purdah and have been chaste. The exciting film songs broadcast in radio and obsence films telecast form T.V. also add fuel to the fire. Could not the Information and Broadcasting Ministry maintain some standards in this respect.

10. The chilling pressure-horn deafens the ears? Noise pollution is at its rampant increase. Could not vehicles use musical horns only when required and avoid pressure horns completely which could even be banned. Exhaust, smoke & dust pollution is also hazardeous. Tucks often roll at death speed causing accidents.

11. We have yet to learn how to honour time. Lawrence has stated in his book "The valley of Kashmir," that the pace of life of the Valley corresponds with that of the (speed) velocity of the flow of River Jhelum. Often we find young people wasting time on streets and also playing cricket with plastic balls right on the road-side, unmindful of traffic hazards, when their time could be utilized usefully by providing them chances for healthy relaxation

like sports, music, spiritual guidance and parks etc. It appears that we have yet to board on the ascension of human behaviour, which could be prompted by adopting suitable measures. *If we could honour time, time would honour us.*

12. In foreign countries every attempt has been / is being made, to ensure comfortable living for common man, but unfortunately we have been going on in a reverse direction. Could this trend be reversed? When? How?

13. Our forty years have passed in Zindabad and Murdabad. It is hoped that its end is near and that we are on the threshold of a new era. This could be made possible by an effective, sincere and dedicated leadership / Government, provided there is sanction from Almighty Allah. (Insha-Ullah).

14. Bus Stops, too close to road junctions like, Karnanagar and Khanyar be got shifted to proper defined places. I had an accident on 16-6-86 at 1 P.M. with a bus No. JKP 1625 and the case was referred to police deptt with no result.

15. Additional traffic lane be provided along the road from Jehangir Hotel to Batamaloo Bus Stand, as the land for the same is very much available on High Court Complex side. This is to relieve pressure on the present road, which will generate further traffic on opening High Court Complex and Assembly Building in Gandhi Park. Besides the road from Exhibition to Neelam Chowk is being closed to traffic.

16. This winter has reminded us of the severe winters, which our ancestors have been experiencing earlier. Our stock of Kangri Coke, has got exhausted, but cold is still persuing us. Could we not instal radiators in our houses just like the practice prevailing at Bukhara, Samarkand in USSR. In this connection expertise can be sought for through Central Government. The cost of construction of Hamam, Turkish bath is exhorbitant and fuel for the same is vanishing fast from Kashmir and then it is ruled out for common man.

17. Great emphasis needs to be laid on proper women's education in whose laps future generation is nourished and the child gets the initial education, laying foundations for his future behaviour and programme.

18. We must work calmly with patience and after giving due thought taking all pros and cons into view, before launching on any scheme. Every one *knows* "*Haste makes waste*" and extreme tension leads to failure of the material as well mental peace/capacity. Thus in haste, the work at hand gets spoiled and leads to later repentance. To work with intermittent relaxed atmosphere, .. increases efficiency and provides mental and spiritual joy and satisfaction. Patience and forbearing is God's way, as He too took six days to create this universe and that tension and haste is Devils way, of doing work.

**James Bryce Says**

*"To the vast majority of mankind nothing is more agreeable than to escape the need for mental exertion. To most people nothing is more trouble-some than the effort of thinking."*

**Mrs. Kate Henderson Said**

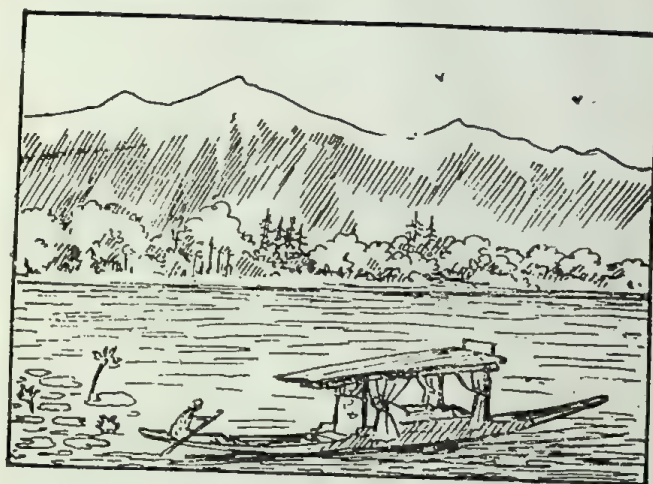
*"Never become so fanatically Scientific or Religions, that you forget to be human."*



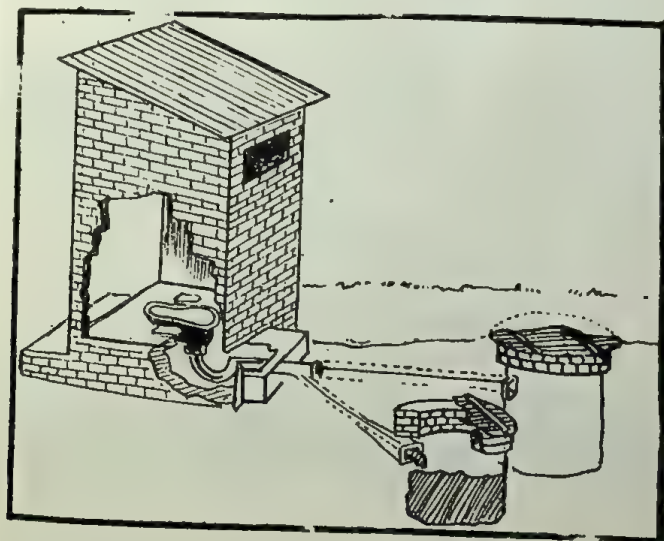




15 The Jichun river today, the Shah Hamadan mosque in the background



# DAL LAKE DEVELOPMENT & Pollution of Water Bodies



How grateful should we all be to God almighty for selecting this State for abundance of clean and sweet water. An area of 260 Sq. Km. in the State is under water in the shape of springs, lakes, rivers and tanks. These and other bewitching objects of nature moved Jahangir so much that he said that "If at all there is a paradise on the surface of earth, it is here, it is here".

The vale of Kashmir is compared with Switzerland and Venice. The Dal Lake, Nigeen Lake, Anchar Lake, Khushhal Sar, Kute Khul, Chownti Khul, Nallah Doodganga and erstwhile Nallah Mar are the main water spots in the city of Srinagar. The Dal Lake and the river Jehlum are the heart and soul of city. The lake of Dal has been a source of attraction for tourists, home and abroad. The reflection of electric lamps in the lake water from the house boats in the moon-lit-night enhances its beauty all the more and one feels as if one is transported to some fabulous city of Arabian Nights. The beauty of the lake is especially heightened by the towering mountains around it and the famous Mughal gardens on its eastern bank.

The city is connected with the Mughal gardens by a boulevard around the lake. The Lotus flowers in Autumn decorate the surface of the lake which present an unforgettable sight. A ride in a Shikara in the lake puts the sides under a magical spell, especially when the tall safedas and snow-capped mountains are reflected in the clean water of the lake. On seeing such a remarkable picturesque beauty of the lake, Hafiz Jallandari cried out :-

”سطحِ دل لرزائے کلوایے قصاں شکارے ہیں رواں  
ان میں کچھ دسین اور پھارے پیارے ہیں رواں“

i.e. The surface of Dal is trembling, the lotuses are dancing & the shikaras (boats) are rowing, in which are some beautiful lovely people enjoying.



It is stated in Tarikh-i-Hassan that in ancient times, this area was a vast flat land and was known as Talnimarg. Raja Porvarsain constructed a bund near Nowpora and made the River Jehlum to flow at the base of Kohi - Maran (Hari Parbat) and through the City of Srinagar and after some time this bund got dismantled and the river water flowed into this vast field converting it into a vast present lake. The rulers of the time made no attempt to change its position. Sultan Sikander got a bund or pathway, to lay pipe line of straw, constructed through the lake from Naidyar to Nishat which has remained untouched till date. Yousuf Khan got another bund constructed from Khojayarbal to Ashaibagh which is now known as Nigeen Road that leads to the Hazratbal. In this way the entire lake has divided into three parts: Big Dal the area before the Shrine, Small Dal stretching from Nehru Park to the Nishat garden, and Nigeen lake in the eastern side of Kohi Maran, the deepest portion of all the three parts of the Dal. Subsequently encroachments were made by interested people and parts of the Dal were occupied by some and began to cultivate vegetables in the area and even made floating fields which too are used for growing vegetables. The water of these lakes was so clean that a fish could be detected swimming at the bottom of the lake. There are four big springs in the lake, besides, small ones, which are supposed to be the source of perennial fresh water to the lake, in addition to the Telbal Nala which comes from Marsar and other tributaries.

Sona Lank and Ropa Lank, two islands in the midst of Dal Kalan and Dal Khurd, were constructed by Sultan Zain-ul-Abideen and Hassan Shah respectively. The Dal was linked with the river Jehlum via Habba Kadal but Budshah got it closed up and connected the Dal with Jehelum via erstwhile Nallah-Mar. In summer Dal water was used to irrigate Achan area and in winter Chownti Khul linked it with Jehlum.

In the same way Anchar Sar which is situated in North of Srinagar City was four miles long to two miles broad but is converted into a marshy area now. Gilsar and Khushal Sar were connected with it. The Dal was finally connected with the Anchar Sar.

There was another lake in the southern side of the city of Srinagar called Rakh Gund-i-Ake Shah where now a new housing colony is coming up. In the middle of the city Brarinambal which contained once

pure and clean water is breathing its last like Anchar Sar. Nala Mar has been filled in and the refuse of that part of the city for which nala mar was a drain, is now deposited in the Dal and making it all the more polluted.

The Dal is facing grave and serious problems these days. The total area of 24 Sq. miles of the Dal has considerably shrunk and most of the present area is under cultivation of vegetables, encroachments, illegal houses strips of land made for cultivation of vegetables etc.

*Following are the factors responsible for changing the Dal into the unhealth marshy area :-*

- 1) Draining and depositing all refuse, sewage into the lake from the adjacent area.
- 2) The absence of any proper arrangement to drain out sewage from the evergrowing number of house boats in the lake.
- 3) Encroachments and construction of house boats and hotles in the area by using various devices of filling.

*Experts have given the following suggestions in view of the financial difficulties involved in it :-*

- 1) A mall road to be constructed on the northern and western sides of the Lake to preserve the extent of the Lake.
- 2) House boats to be suitably placed when the sewerage facilities would be provided to the all.
- 3) To control the flow of the water of the lake by a controlling gate on Nallah Amir Khan and make more openings in the interior bunds of the Lake.
- 4) Construct a settling basin at the end of Telbal-Nallah.
- 5) Plantation in Dachigam and on the banks of Telbal Nallah.
- 6) To remove soil near the shallow banks of the Lake. and
- 7) Allow permission of constructing houses near the bank of the lake under a plan.

The estimated cost of this project is Rs. 64 crores and the work was taken in hand in 1978. In view of the financial difficulties, the centre is considering help from international agencies.

The scheme is of vital nature in view of tourist

importance and environmental balance to be maintained in future.

Like the Dal Lake other waterways, Jehlum etc. are subjected to pollution for want of proper drainage and Sewerage system. The common people add all the more to this atmosphere by throwing their refuse on the road side or deposit it in the existing drains which is by and large the main source of various diseases to epidemics. To control such diseases the Govt. has to spend large sums. It is of utmost importance to concentrate on preventive measures than cure. Diseases waste our time and adversely affect our economy and in case we can not keep these water reservoirs clean, it is bound to bear bitter fruits in the field of tourism. This undifferent and careless attitude of the people and other agencies is bound to, in case it is not checked by the Govt. now, make the river Jehlum and the Dal also die the same death as was met by the Brarinambal which receives all the filth of the city and carries it to the Dal water. No doubt the Govt. has taken in hand the project of constructing a drainage system around Brarinambal, but it can not be effective unless common people are educated to preserve such priceless treasures of Kashmir.

The Govt. has approved a scheme for drainage and sewerage for Srinagar which will cost about 118 crores of rupees, but for shortage of funds, only a crore is spent on the project every year.

In the absence of an elaborate system of drainage and sewerage system there is another way to dispose the sewage of the city which pollutes, the atmosphere and causes many diseases and that is the construction of soakage pits and septic tanks. But such method is also beyond the reach of a common man as it costs eight to ten thousands rupees per point.

Now a third way, which incurs comparatively very little cost and has been working successfully all over India. About 40,000 units have been constructed in Patna (Bihar) and many of them are located in densely populated areas. This is known as Pour Flush Latrine. It consists of a squatting pan of a specific design and a trap having 20 mm water seal. This is so designed that the refuse of a man can be flushed by 2 Litres of water. The squatting pan can be connected to leaching pit through a pipe or covered drain. These pits are lined with honey comb brick



work or open jointed stones, so as to allow liquid in the pits to percolate and gases to be absorbed in the soil. The sludge gets digested and settled down gradually.

The pits are used alternately, when one pit is filled, it is stopped being used and the excreta is diverted to the second pit. The filled up pit is left unused for 24 months and the ingredients become rich organic humus harmless and without any smell and it can be reused when the second one is filled up. With simple care, the pour Flush Latrine is very satisfactory and hygienic system. It can be located safely in a house.

Such Pour Flush Latrines have been constructed and are in use in some parts of the city like Tankipora, Zainadar Mohalla, Lal Bazar, Bagwanpora and Fort area with the cooperation and ASSISTANCE OF U.E.E.D and U.N.I.C.E.F. Similarly in the absence of any elaborate arrangements, the house hold garbage, filth and refuse which has choked our drains, Lakes and rivers can be easily deposited in a pit  $1\text{m} \times 1\text{m} \times 1\frac{1}{2}\text{m}$  near our houses or yards, with a lid. The deposited material can be used as manure after some time.

In this or such other ways we can maintain the universal fame of our valley as well as the balance in environmental atmosphere.



## VII

### *Paper on Environmental Development and Peace, Environmental Consideration for Urban Development, read on Annul Day of Institution of Engineers J&K Srinagar on 17-6-1986.*

*Revered Chairman and Members of the Executive Committee of The Institution of Engineers (India) Jammu and Kashmir State, Centre Srinagar and Engineering elite*

This paper is actually a set of papers already read in various forums and also presented to the J&K Government officially and also presented to His Excellency, The Governor of Jammu and Kashmir State, a few days back. Besides that there is an annexure No. 4, and also a few pages which I am going to recite here and which do not form the part of this paper as the same came to my mind only after this paper got cyclostyled yesterday. I may read some of the extracts also, the rest you may read at your respective homes.

“It is God who has made the earth for you to dwell in, with the sky as a canopy, and shaped you, then improved your forms, and supplies you with good things. Such is God your Lord, so blessed be God, the Lord of the Worlds (40:64) Glory be to Him who created all the pairs of what the earth brings forth, and of yourselves, and things you know not of:” (Quran 36:36).

“Are you harder to create, or the sky He built? He raised its height and planned it, darkening its night and bringing forth its moon, and afterwards, He spread out the earth (79:27-30) placing therein mountains over it. And He has blessed and distributed its nourishment (41:10) He brought out of it, its water and its pastures, for you and your cattle to enjoy. (79:31,33). We have created you

in pairs, and have ordained your sleep for rest, putting the night as a cloak and day for livelihood. And we have built a mighty heaven over you and placed a blazing lamp; and we send down plenty of water from the rain clouds, so that with it we may bring forth grain and other plants and leafy gardens (Quran 78:8-16).

“Allah is He who created the heavens and this earth, and causeth water to descend from the sky, thereby producing fruits as food for you and made the ships to be of service unto you, that they may run upon the sea at His command, and hath made of services unto you, the rivers and maketh the Sun and the moon, constant in their courses, to be of service unto you, and hath made of service unto you the night and the day. And he giveth you of all ye ask of Him, and if ye would count the bounty of Allah ye cannot reckon it. Lo; man is verily a wrong-doer, an ingrate: (Quran 14:32-34).

I would like here to quote Dr. Iqbal's couplet in Urdu. i.e. “All including these Milky ways, stars and blue skies are waiting for the ascension of the earthly man. The entire universe is a heritage of true believer.” My statement is supplemented by God's revelation to prophet Mohammad (PBUH) that “if I had not to create you, I would not create these universes.”

(Hadisi-Qudsi)

“So the entire universe being man's hertiage, planet earth and hence Kashnir being a part of the same is our hertiage and so is City of Srinagar and so are the other towns of the State.”

Again I quote Iqbal.

“This nightingale is a prisoner of this very life-refreshig garden in Kashmir which has won my heart.

My native land which is an unparalleled paradise has descended to us as Adam's heritage.”

All water is sacred to us because all creation has begun in water as per the various verses of Quran.

The topic under discussion is environmental consideration for urban development.

What is environment?

Environment means: Surroundings, surrounding objects or



circumstances.

**And what is urban?**

Urban- means living or situated in City or Town.

Before God created man, he created congenial environment for him. Thus environment is our fore-runner.

I happened to attend an annual meeting of National Anatomical society of India held at Jammu in 1984 when we were introduced to Mr. B.K. Nehru the then Governor of J&K State at Raj Bhawan, he asked me, how an Engineer has crash landed among Doctors? My instant reply was, Sir, God had to become an Engineer, before he chose to be a Doctor. He made environment, then Designed and shaped human structure and breathed into him a soul and also arranged for the cure of his diseases, though caused by the abuse of environment by man. This reply was appreciated by my neighbour standing near by my side who was Director of the Council of Scientific and Industrial Research Jammu.

Here I may say that the burning issue at present is that Doctors have been allowed to go ahead with the private practice, but without charging any remuneration from people. I must say that Engineers are already doing private practice without charging any remuneration. Will you give them any credit for the same? I know you will say no.

“If waters of the Sea were ink with which to write the words of my Lord, the Sea would surely be consumed before His words were finished, though we brought another sea to replenish it.”

*(18:109) Quran.*

Providence has provided to man the planet earth with its self sustaining biosphere (i.e. air, land, water) the cool moon, the hot Sun, the twinkling stars, the milky ways, the Universe and has subjected to his use all these things including the other creations there in. Man has an edge over whatever his eyes can see, ears can hear and mind can conceive of. I hope you have no doubt about it.

You may now ask, what did man do on this planet earth?

We know that nature communicates with man both through silence and sound, through emission of lights and colours, through tastes and smells, through cold and hot temperatures through move-



جهان را ز یک آب و گل آفریدیم  
 تو ایران و تاتار و زنگ آفریدی  
 من از خاک پولاد ناب آفریدیم  
 تو شمشیر و تیغ و تفنگ آفریدی  
 تبر آفریدی نهال چمن را  
 قفس ساختی طایر نعیم زن را



و اکثر اقبال

تو شب آفریدی چراغ آفریدیم  
 سفال آفریدی ایام آفریدیم  
 بیابان بهار و راغ آفریدی  
 خیابان و گلزار و باغ آفریدیم  
 من آنم که از سنگ آئینه سازم  
 من آنم که از زهر نوشینه سازم

ment or otherwise, through electronic impulses, Radiation etc. etc.

The examples are sunlight, moonlight, lightning, bright days and dark nights, blue sky, various colours of earth, stones, trees, grasses, flowers, fruits and animals, dripping rainfall, snow fall, hail storms, thunders, earth quakes, volcanoes, gushing springs, sprills, breezy sound of forest trees, short wave noise from space; various tastes of food and drinks, smell of flowers, fruits, leaves of trees, of breezes and rocks, moving springs, gushing streams, rivers and lakes, earth, moon, sun, solar system and other celestial bodies and expansion and contraction of the Universe and so on, communicating links between man and plants through electronic impulses and radiation emitted from celestial bodies and other materials on the earth's surface.

Man learnt to communicate with other animals and also with his fellow beings by standardising his sounds called language. He learnt to read and write, to draw figures and paint them, giving birth to Architecture, Literature, Sculpture, Theatre, Astronomy, Biology, Chemistry, Physics, Geography, Medicine, Anthropology, Fishing, Sports, Games etc. He learnt to communicate spiritually with his creator. He learnt how to pray. He made houses and sky scrapers. Tape recorders, Telephones, Teleprinters, Wireless, Tele Stars, Computers, and Robots, lethal weapons, nuclear arms, bombs, Missiles etc. etc.

He learnt to control animals on earth and birds in air and creatures of Sea. He learnt the art of civics, Government. He framed laws. He learnt to fly like birds, swim like fish and run like animals, but did he learn to walk and live like a dignified man on earth?

The man made automobiles, steam engines, aeroplanes, jets, rockets, ships, submarines. He learnt diving and also boring holes into earth. Man explored land, mountains, forests, deserts, seabeds, and tries to penetrate the globe through its centre. He grew trees, plants flowers and fruits and other crops. He has also set his foot on moon and is attempting to reach other planets.

Until and unless the existence of life on other planets is discovered, Man remains / Gods Viceroy (Khalifa) on the surface of earth being noblest creation and all these surroundings shall remain subject to his use. Thus he has taken on his shoulders the



responsibility of not abusing his environment, and this is why we have gathered here in this auspicious gathering at this point of time in the history of this universe.

I once asked a question in a Seminar on Dal Lake i.e. why the pollution, for which man is held responsible cannot be called to be a natural process, as man too was a natural animal with a Superior intellect? The answer was, that since Man has been provided with brains and energies and directions to control the pollution, and to abide by the laws of nature he shall be held responsible for every abuse of environment. If that is so, then let us see what we can contribute for the benefit of ourselves and also for the future progeny, that shall replace us soon.

Little could the traveller have imagined that the long and arduous road going up hill and down dale, over the 9,000 feet Banihal Pass, would bring him to a country virtually floating on water. This is the Valley of Kashmir known to its inhabitants as "KASHIR," Perched securely among the Himalayas at an average height of about 6,000 feet above the sea, it is approximately 84 miles (134.4 Kms) in length and 40 miles (64 Kms) in breadth. North, east and west, range after range of mountains guard the valley from the outer world, while on the South it is cut off from the Punjab by rocky barriers fifty to seventy five miles (120 Kms) in width.

The population of the State in the 1981 census was 65 lakhs. Over 80% of the people reside in rural areas.

Kashmir through the ages, has remained another name for paradise. A dream garden, painted a new, each season never fading in its compelling beauty throughout the year. The whole of Kashmir is gemmed with Lakes.

The gateway to this paradise is Srinagar, which revolves around an expanse of water called Dal Lake bustling with activities serving as an aquatic plaza and near of Srinagar City. Bright awnings and flower baskets, sparkling in the Sun-Shine. Mobile markets on Shikaras bob merrily. Criss-crossing the waters with contrasting multitudes of goods and traffic, sing song voices calling out wares as diverse as fruits and hand woven carpets. Actually four lakes in one Gagribal, Lokut Dal, Bod Dal and Nagin Lake. Each spot has millions of years of history buried under or

even drowned in it.

Srinagar is situated in a Valley, surrounded by hills. The ground surface elevation varies from 1620 metres on the eastern hill slopes to 1580 metres, in the vicinity of the River Jhelum. There are three major Lakes, the Dal and Nagin lakes being within the Project Area of Dal Development, looked after by UEED and Anchar Lake lying just outside and to North-West of the project area. There are two hillocks known as Shankaracharya Hill and Hari Parbat, also known as Kohi Sulaiman & Kohi Maran.

The Jhelum is a meandering river flowing through the centre of the project area. Stormwater run-off from the project area flows into the River Jhelum or into the Dal Lake, overflow from which, in turn, the excess flow used to be diverted through the Flood Spill Channel into the Rakh-i-Gandak Shah march, which served as a flood storage basin, but Alas! the same has been converted into a housing colony now.

The high flood levels of the Jhelum, its spill channel and the Dood Ganga Nallah are higher than adjoining low-lying areas and extensive flood protection embankments have been constructed. The embankments and a number of cross-wise ridge lines have divided the project area into a number of small drainage basins, lacking natural outlines.

In 9th Century at King Avantiverman's time, valley was drained by dragging the outfall channel of the river Jhelum with a view to making available large area of land for cultivation and settlement. Following this, the town below grew in dimensions with the passage of time. During 1342-52 A.D. Sultan Alaudin built a town Alaaddin pora which is now known as Khan Kahi-Maulla and Malik Angan.

Zain-Ul-Abidin (1420-70) A.D. constructed his capital at Now-shahra. He made substantial development for expansion of the city on both sides of the river Jhelum. By the later part of the 18th century seven (7) bridges were built over the river Jhelum. In the nineteenth century, piped water supply system was established and during the first half of the twentieth century the road communication system was improved and new colonies of settlement came up. Subsequently due to rapid urban growth the Municipal

area expanded to cover an area of about 82.55 Sq. Kms. According to the census of 1971, the resident population of Srinagar Town was 4.33 lakhs. The population according to 1981 census is about 6 lakhs. Thus a growth of 3.44 percent per year has been recorded. The estimated population for 1991 and 2001 with this growth shall be 8.4 lakhs and 11.8 lakhs, respectively. It is estimated that there will be an inflow of Tourists in 1991 in the order of 2350 to 6000 per day in lean and peak periods. Considering this figure to be doubled in 2001 A.D assuming an average of three days duration of stay in the City, the tourist infrastructure would be needed for 36000 tourists per day. This together with an estimated 7 percent commuting population would make the cities population of about 13 lakhs in 2001 A.D.

Srinagar City was founded at Budgair, on the right bank of River Jhelum. Originally, there existed a connection between the Jhelum and the Dal Lake, at a point near present Haba-kadal. This was later closed up and Dal overflows diverted through a new channel known as Nallah Mar. This channel was later filled up and Dal Lake overflow is now carried by the Tsunti Khul. This directed the growth of the city in the southward direction and ultimate spill over to the left bank of the Jhelum. Initial settlements were on high lands, but as the city expanded, more and more low lying areas were occupied.

The old city of Srinagar is marked by excessive congestion with houses crowned roof-to-roof. The roads are mostly narrow lanes, ending in numerous blind alleys of 12 to 2.5 m in width.

To the south of Tsunti Khul and west and South-West of Kuti Khul, lie the more recent extensions of Srinagar City. To a large extent, this has been the result of unplanned growth, with the resultant features of occupation of low lying areas, mixed and non-conformable land uses, poor drainage, water logging and inadequate development of public utilities and community facilities. Since 1973, however, attempts have been made to control urban growth and land use in line with the recommendations of the Srinagar Master Plan.



## VIII

# *“Action Sociology” Background and Problems in Kashmir*

The topic under consideration today is “Action Sociology” Sociology is defined as a *study of human, specially civilized society; study of social problems, especially with a view to solving them.*

Let us see what Allāh has to say about society/sociology, “Men we have created you from a male and a female and divided you into nations and tribes, that you might get to know one another. The noblest of you in Allāh’s sight is he who fears Him most. God is forgiving and merciful (Quran 49 : 13) Believers, let no man or woman mock another man or woman, who may be better than him or herself. Do not defame one another, nor call one another by nicknames. It is an evil-thing to be called by a bad name after embracing true faith. Those that donot repent are wrong doers” (Quran 40:10).

On the farewell message prophet Mohammad (S.A.W.) stated that Allāh says “People, I have created you from one man and one woman and made you into nations and tribes, that you know each other (not that you hate each other). No doubt the most honoured among you is the one who is most righteous of you. Hence the Arab is not superior to a non Arab and vice versa. Nor black is inferior to white or otherwise. All men are equal for they are the sons of Adam, who was created from dust.”

“And surely you have to meet your creator , when he will question you about your doings. So do not after me, go back on the ways of ignorance and begin to cut one anothers throats. Satan has lost hope of being worshipped in this land of yours. But in minor sins, which you consider light, he might be obeyed and even this will please him. Hence always keep guard over the designs of satan in order to preserve your faith.”

Regarding history of Kashmir, I have to say that Mr. Jawaharlal Nehru has stated, "In sanskrit, is history of Kashmir i.e *Raj-tarangni* written by Kalhana and tells a lot about past, especially Kashmir," which is also the homeland of Nehru dynasty.

In 1st century B.C. Kushan rule extended to Benaras, Vindya in north, borders of Persia and Parthia in West, Punjab and Kashmir and good bit of Central Asia and the empire lasted 300 years. The capital was Kabul and later Peshawer. It is indicated that King Solomon and Moses visited Kashmir.

It is further believed that Jesus travelled north. Kashmir has given to nation luminaries like *Dr. Iqbal and Jawaharlal Nehru and Mrs. Indira Gandhi*.

It may be of interest to you to know that Kashmir was once sold by British to Raja Gulab Singh of Jammu for Rs. 75 lakhs. The poor people of Kashmir of course did not count in the transactions. Dr. Karan Singh now Ambassador to USA is the decendent of Mahraja Gulab Singh.

### *Geographical Discription*

If one looks on the map of Kashmir, one sees a white footprint set in a mass of black mountains. This is the valley of kashmir, known to its inhabitants as Kashmir. Perched securely among the Himalayas at the average height of about 1830 meters above the sea, it is approximately 134 Kms. in length and 35 Kms. in breadth. North, east and west, range after range of mountains guard the vailey from the outer world; while on the south, it is cut off from Punjab by rocky barriers 80 Km to 120 Kms in width.

Regarding the formation of the vale itself, perhaps the theory of its lake origin will best explain the slopes and ledges which render the configuration of Kashmir striking and unique.

Kashmir abounds in mountain tarns, lovely lakes and snowy lagoons. Of the lakes, the Wullar, the Dal and the Manasbal are the most beautiful owing to the varried scenery given by the mountains which surround them. The Wullar lake is the largest in India, being about 20 Kms. by 8 Kms. in extent and is almost surrounded by the lofty mountains, which tower over the north and northeast

of the Valley.

The Charm of Mansbal lake chiefly consists in its deep clear water and its pink Lillies, but it has behind it a grand mountain, which forms an effective contrast to the gentle beauty of the Lake.

The Dal Lake measuring 6 Kms. by 4 Kms. lies close to Srinagar and is perhaps one of the most beautiful spots in the world. Besides this, there are many springs in the Valley which are health resorts with their refreshing water.

This led Jchangir to say:-

If there is paradise on earth, it is here, it is here, it is here,

People say that the Dal Lake is silting up and is polluted by raw sewage and waste water flowing from "a sizable population" around and within, also being that of houseboats stationed in it. Although steps to protect the lake are afoot but financial constraints prevent us to attack the problem as it deserved. *Being an international tourist spot, the area has direct bearing on the health of the globe.*

The surroundings of the lake and the city; being of tremendous historical importance, it has invited aid from Unesco, WHO and World Bank (being a hertiage of humanity at large), which is still awaited. I quote Dr. Iqbal:

"This nightingale is a prisoner of this very life-refreshing garden of Kashmir, which has won my heart."

About the great city of Srinagar, city of the sun and the blessed city became capital of Kashmir about A.D. 960. Considering its unhealthy surroundings of lakes and swamps and its low-lying position, it is a matter of regret that some higher and more healthy site was not chosen, inspite of establishment of the capital at a higher spot namely *Nawshehra on its north side* by King Zainul Abidin. The city consists of houses/constructed together in utter confusion on either sides of the river Jhelum, which winds through Srinagar with an average width of eighty metres. The houses occupy a length of about 5 Kms. and a breadth of about 3 kms. on either side of the river, but the greater part of the city lies in the right bank. Although a few new planned/unplanned colonies have come up and the Master plan of the city has been prepared about 12 years back but unfortunately due to varios reasons, its implementation



has not been got ensured as required and it is very heartening to say that the master plan has been abused and new slums are generated in the open high and dry areas. The city has expanded to about 25 Kms by 20 Kms and in this area there are about one lakh nos. of houses, where 6 lakhs persons as per 81 census eat, sleep and die. The houses are mostly old, low, made of sundried or burnt, bricks, with sloping roofs, built irregularly; without any method, on narrow, tortuous paths.

Ventilation in the old town is imperfect. About 60,000 nos. house have latrines and river banks or open fields are being used as such in urban and rural areas. The no. of sweepers engaged by the municipalities is microscopic as compared with the requirement for such a vast population. Slush, filth and ordure are washed by tap water through the drains into either river Jhelum or into Dal Lake and Anchar Lake. Nalla mar (A Canal) which was passing through the heart of old city and was besides catering for the drainage of the surrounding areas, and also for the drainage of the surrounding areas, serving as an outlet for the surplus waters of Dal Lake into river Jhelum, has to our dismay, in our very life time, been converted into a double lane road of course without, the originally proposed trunk sewer, to cater for the drainage of the area.

On account of the absence of melting snow in winter and rain in spring the rivers/ streams run almost dry and the winter nights have to be passed without electricity in ending 20th. century also, as the hydroelectric power stations become non functional in absence of water in winter.

The people get immersed in a polluted atmosphere, caused by the product of put-refective and fermentable matter, accumulated in houses and numerous narrow lanes and passages, nooks and crevices, which intersect the town. This often produces an epidemic constitution in the people fitted for the reception and fostering of Cholera germs. In the rural areas, the conditions are still worse and I feel sorry for presenting *this dark side of the picture of deep interior Kashmir, which must be contrary to what you have been hearing*

*so far, regarding its natural scenic beauty.* I must here say that since "Truth is bitter" but it is high time that we give vent

to our feelings, so that the social and economic setback, resulting, because of the negligence of providing a proper sanitary environment are put to a check and that steps are taken right in the earnest for the betterment of the same in a big way. Education and Publicity media needs also to be geared up for propagating the harm being done by polluted environment.

Mr. T.R. Lawrence, once settlement commissioner of Kashmir and Jammu state in 1889, a 100 years back wrote in his book called "The valley of Kashmir" that Kashmir is possessing a distinct nationality, character, language, dress and body of customs, affords much that is interesting, while its unique history and curious administration are worth careful study. The beautiful valley has been for many years a pleasure resort of Europeans "and much has been written on it." As stated by him, 'Kashmiri at that time was ruled by "Rawaj" (Custom) and was content to abide by "Ain" (code of customs) of the country. In some respects he was better off than his fellows in India. He had ample grazing for his sheep and cattle, fuel for the winter, good warm clothes and sufficient for cultivation. He was not extravagant and happily spent little on marriages and similar occasions. But that it is possible as prosperity increases the Kashmiri will follow the example of India, will increase expenses of *marriage and also on death ceremonies.*"

"If the state will intervece and order that the old scale of marriage expenses shall be observed, the people will gladly obey. They are docile and are always ready to carry out orders, which are conservative in their tendency. They understand that they are responsible for irrigation channels, of communication between villages and it would be great mistake, if the state ever relieved them of this *responsibility.*"

Unfortunately as we have abserved, what has happened in the past one century is that the *apprehensions of T.R. Lawerence* have come to be true in letter and spirit. The state has been negligent due to various circumstances and so have been the people resulting into deterioration of environmental sanitation and also into moral, mental, and intellectual pollution.

In order to save the situation ,crash programmes need to be

has not been got ensured as required and it is very heartening to say that the master plan has been abused and new slums are generated in the open high and dry areas. The city has expanded to about 25 Kms by 20 Kms and in this area there are about one lakh nos. of houses, where 6 lakhs persons as per 81 census eat, sleep and die. The houses are mostly old, low, made of sundried or burnt, bricks, with sloping roofs, built irregularly; without any method, on narrow, tortuous paths.

Ventilation in the old town is imperfect. About 60,000 nos. house have latrines and river banks or open fields are being used as such in urban and rural areas. The no. of sweepers engaged by the municipalities is microscopic as compared with the requirement for such a vast population. Slush, filth and ordure are washed by tap water through the drains into either river Jhelum or into Dal Lake and Anchar Lake. Nalla mar (A Canal) which was passing through the heart of old city and was besides catering for the drainage of the surrounding areas, and also for the drainage of the surrounding areas, serving as an outlet for the surplus waters of Dal Lake into river Jhelum, has to our dismay, in our very life time, been converted into a double lane road of course without, the originally proposed trunk sewer, to cater for the drainage of the area.

On account of the absence of melting snow in winter and rain in spring the rivers/ streams run almost dry and the winter nights have to be passed without electricity in ending 20th. century also, as the hydroelectric power stations become non functional in absence of water in winter.

The people get immersed in a polluted atmosphere, caused by the product of put-refective and fermentable matter, accumulated in houses and numerous narrow lanes and passages, nooks and crevices, which intersect the town. This often produces an epidemic constitution in the people fitted for the reception and fostering of Cholera germs. In the rural areas, the conditions are still worse and I feel sorry for presenting *this dark side of the picture of deep interior Kashmir, which must be contrary to what you have been hearing*

*so far, regarding its natural scenic beauty.* I must here say that since "Truth is bitter" but it is high time that we give vent



to our feelings, so that the social and economic setback, resulting, because of the negligence of providing a proper sanitary environment are put to a check and that steps are taken right in the earnest for the betterment of the same in a big way. Education and Publicity media needs also to be geared up for propagating the harm being done by polluted environment.

Mr. T.R. Lawrence, once settlement commissioner of Kashmir and Jammu state in 1889, a 100 years back wrote in his book called "The valley of Kashmir" that Kashmir is possessing a distinct nationality, character, language, dress and body of customs, affords much that is interesting, while its unique history and curious administration are worth careful study. The beautiful valley has been for many years a pleasure resort of Europeans "and much has been written on it." As stated by him, 'Kashmiri at that time was ruled by "Rawaj" (Custom) and was content to abide by "Ain" (code of customs) of the country. In some respects he was better off than his fellows in India. He had ample grazing for his sheep and cattle, fuel for the winter, good warm clothes and sufficient for cultivation. He was not extravagant and happily spent little on marriages and similar occasions. But that it is possible as prosperity increases the Kashmiri will follow the example of India, will increase expenses of *marriage and also on death ceremonies.*"

"If the state will intervece and order that the old scale of marriage expenses shall be observed, the people will gladly obey. They are docile and are always ready to carry out orders, which are conservative in their tendency. They understand that they are responsible for irrigation channels, of communication between villages and it would be great mistake, if the state ever relieved them of this *responsibility.*"

Unfortunately as we have observed, what has happened in the past one century is that the *apprehensions of T.R. Lawerence* have come to be true in letter and spirit. The state has been negligent due to various circumstances and so have been the people resulting into deterioration of environmental sanitation and also into moral, mental, and intellectual pollution.

In order to save the situation ,crash programmes need to be

launched to keep pace with the race of time and also steps to set right the disorder thus caused.

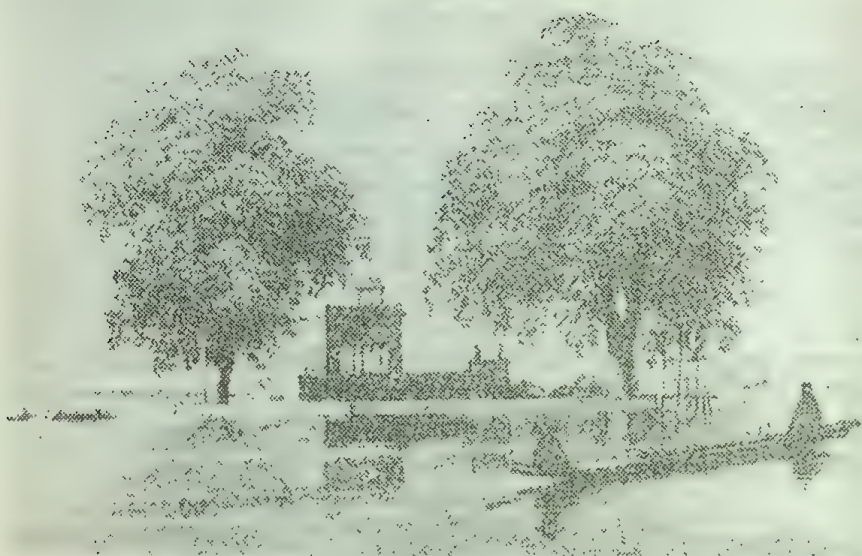
Although steps are a foot to save the Dal Lake, though with meagre funds: Low cost sanitation has been started in a few selected areas of the city, further, projects for other towns have either been prepared or are in the making; thanks to Dr. Bindeshwar Pathak's efforts and Unicef, UNDP, State and Central Government's keen interest and peoples awareness and cooperation and response to the publicity given during the late few years (3 no. pamphlets are enclosed). Solid waste disposal is also being attended to but need to be given more attention and generation of biogas and other products of the wastes include particularly the *weeds of Dal lake*, which are being extracted mechanically and also cow dung and tree waste in rural areas needs to be attended to on top priority. Similarly cheap smokeless chulhas and *Paru stoves using rice husk repeatedly which has been developed in Punjab*, needs to be introduced in rural areas. *Limited solar days available need to be taken advantage off by utilising solar energy and also radiators need to be installed in every home to keep them warm during below-freezing temperatures in winter as has been done in Bukhara in Soviet Union. This would relieve us of the age-old Kangri, the unique firepot which exists only in Kashmir.* Alternative power generating stations using nuclear energy need to be installed as we have to suffer during the greater period of the year for even more than six months on account of frequent power breakdwns and have to go without electricity for two to three days - a week. *Though our country has set its pace in the space, yet it is surprising that we are deprived of the electricity and the required sanitation facilities in the present 20th century ending.*

Srinagar and other towns being mostly situated on the fringes of lakes/rivers, streams and springs, need topmost attention towards checking of water pollution, which takes main toll of peoples health and their working mandays, resulting into their economic deterioration.

The future progeny is bound to be indebted to the efforts made by various insitutins like *Sulabh International, Unicef*

*(UNDP), WHO, State and Central Government, and above all the people concerned of the present generation, for attempts being made in improving the environment and bringing joy and happiness in their hearts and minds and smile on their faces and this may result into our spiritual bliss and our souls also shall rest in peace, when a new race shall replace us as has been the case with our previous race, whose place has been taken by us at present.*

Thus I shall close with the remark that "top most attention is invited towards urban renewal, improvement of sanitation and power projects in J&K and other states of the country while as other development will follow."



8. Char Chinar island from a drawing of 1845 by Godfrey Vigne. The pretty Mughal pavilion is clearly visible.



9. The same view of Char Chinar island today, with no trace of the pavilion.



## IX

# *The Concept of Action Sociology*

Revered Chairman, honoured luminaries of Patna University & Sulabh International and brothers & Sisters.

The first time I heard the term 'Action Sociology' was a few days back, when Mr. Pathak told me in Srinagar, that he is having a seminar on the subject at Panna on 28th to 30th July, 1986 and extended an invitation to me to attend the same. The definition of the term 'Action Sociology' became clear to me when I saw sociology in practice, on having visited various centres of the Sulabh International yesterday. Although I tried to look in the dictionary what sociology means, "study of human especially civilized society; study of social problems, especially with a view to solving them" Therefore, "Action Sociology" should mean *action on the solutions of the social problems*.

Social problems have been existing right from the time first man began to breathe, on the surface of this globe along with his wife. But unfortunately you have not been asked to bring your wives with you.

I feel the Creator has been himself the initiator on 'Action Sociology', when he created Man & Women, providing them with common physical structure, though they differ in features, mental and psychological behaviour. You may call it unity in diversity and He also provided them with one globe; one sun, one moon & sky around.

Human beings have also responded by proving to be 'Action Sociologists' by having uniformity in their thoughts, regarding the existence of Creator and seeking of His shelter in distress or trying to seek Nirvana like Budha and through their behaviour with their fellow beings and other living animate and inanimate objects.

It is a matter of thought to know that in the Birth - place of Budha, who preached Sociology in 560-BC, men like Dr. Pathak

should take birth, whose work shall be a pioneering work for the rest of the world, and that the birthplace of Budha should be meeting place of topmost sociologists of India as we see it here today; with our own very eyes.

What has Budha to say about Sociology, I quote, "Thousands of candles can be lighted from a single candle, and the life of the candle will not be shortened. Happiness never decreases by being shared." (P. 260 The teachings of Budha by Buddhist Promoting Foundation 3-14,4; Chome Shiba Minato-ku-Tokyo-Japan, 108).

"There are six things that will help to lead a Brotherhood to harmony. They are;

1. Sincerity of speech; 2. Sincerity & Kindness of action;
3. Sincerity and Sympathy of spirit; 4. Equal sharing of common property; 5. Following the same pure precepts; and 6. All having right views. ("The Teachings of Budha" Page-484). ----

Among these the sixth i.e.; "all having right views" forms the nucleus, with the other five serving as wrappings for it.

Prophet Mohammad (POH) says "All men are equal for they are the sons of Adam, who was created of dust."; "And surely you have to meet your creator, when he will question you about your doings. So don't after me, go back on the days of ignorance and begin to cut one another's throats"; as has been happening in our country. The other saying of the Prophet is; "To bring a smile on the face of a person is better than a thousand years of worship." The Prophet himself was an Action Sociologist in all walks of life. He once cleared night soil himself which was littered by a guest (who was a jew) in a mosque. Similarly Mahatma Gandhi the great Indian leader has been a great Action Sociologist. He cleared night soil himself from the Calcutta Maidan, where All India Congress session was held and this made other scavengers & people to follow suit and clear the area. So the term sociology encompasses all walks of life and much has been said but little has been done on the subject. That is why we are meeting here today in Maurya Hotel Patna to discuss and also to decide to Act as soon as we go back to our respective homes.

"Action Sociology has vast field and has many programmes as are now known to us, after we have visited various centres of

Sulabh International. In fact it is every body's concern to rise to the occasion, to eradicate social evils existing among our society, spread-over such a vast expanse of land of our country. The responsibility lies on the locals of that place. Dr. Pathak has set up a practical example & proved it to be a fact, what was previously considered as an utopian dream by people.

Now it is our duty to propagate and also act upon it without losing time. Regarding Kashmir with its back ground, history, geography, problems of sanitation and other existing social evils, kindly read my seperate paper No. 2 at leisure time in your rooms; or if permitted I shall read it here.

I have to make one point only here, that when we talk about relieving of scavengers, the story of Kashmir is different as is the case with other problems too. All the scavengers of Kashmir are MUSLIMS and it shall be surprising to you that they are not registered as scheduled castes, thereby getting deprived of the facilities provided by the Government. Recently a scavenger's son could not get a seat in Engineering College, though his father had brought him up to graduation level by investing the hard earned money through sweeping and was also holding merit. The scavengers in Kashmir need proper shelter, education of children and other facilities. They however are not considered as untouchables. The other social evils like heavy expenses on marriage and death cermonies etc., pretending, rather boasting to be rich, unemployment among educated youth, overcoming of severe below-freezing temperatures making people lazy particularly with a gown called "Pheran" and fire pot called "K ingri" - the unique thing in the world and also going frequently without electricity etc. I would also like to draw your kind attention to the fact that every year hundreds and thousands of beggers come to Kashmir from all over the country for begging and also sight-seeing. This aspect needs to be made research of. I would also request you to think about rickshaw-wallas of Patana City and also improvement of drainage and roads in the Colonies, we have visited yesterday.

Towards one important aspect I want to draw your kind attention, is that we must be thankful to Almighty, for providing within us power to generate electricity, as has been proved by Dr. Pathak

by producing biogas from night soil for which he must be given a credit and also to his teachers and professors of sociology of the great University of Patna.

Once I read in 'Times of India' that a person, once analysed constituents of human body and the cost of the same worked-out to be Rs. 3/ only. With Rs. 3/- The Creator has made a machine, which is automatic and also can produce its prototype and thus we are simply wonderful!

Another point I want to make only is that Kashmir and Patna have had links in the past. In fact as per Rajtarangni, the first International conference of its kind on Buddhism was held in Kashmir, wherein Mahayana Buddhism was born and the same spread to China and Japan and Participants in the Conference were also from China, Japan and Central Asia i.e.; the present Soviet Union. Also one exiled King Yousuf Shah Chak lies buried in Patna. Those ties have got now revived through Dr. Pathak's efforts, when we invited him to undertake a pilot low cost sanitation project in Srinagar City. I hope these ties shall be strengthened further and biogas plant required to overcome the shortage of electricity in Jammu and Kashmir shall be taken up on a big scale.

Impetus has to be given to Women's education "Child is the Father of Man" and the child is reared in mother's lap. So mother has to be educated, who can in turn teach child and lay foundations for a brighter generation.

Lastly I would say that man has learnt to fly from birds, swimming from fish, boring holes into earth from snakes, but has he learnt to walk on earth, shoulder to shoulder with his fellow beings?

Kate Anderson said that "Don't be so scientific or religious that you forget to be human," but I would make a little correction and say "Don't be fanatically so unscientific or irreligious that you cease to be human."

This Seminar has given birth to a new term, we may call it "Acto-Sociology" or "Action Sociology". Let this be recorded in the dictionaries of English to be published henceforth.



## X *Suggestions*

Mr. Chairman, Ladies & Gentlemen,

With due apologies to all, I must say that I am not an academician but an Engineer who tries to put words into action. I think that is what an Action Sociologist has to be.

Although holding of this Seminar is an important step towards Action Sociology, yet during the past two days we have all given thought-provoking and action provoking lectures and also lamenting for not being action sociologists.

I should say, in a way, we are all wrong, so far as lamentation part of it goes, because we all have been action sociologists right from the day we were born, when we started this life, of course, with weeping, inviting sympathies of parents and people around.

I shall give you an instance. Once an angel desired that he would like to know, what man is doing on the surface of Earth; well, he was dropped in a place in *Siberia*, quite naked in the form of a man.

A person passed by, and saw the naked man shivering with cold and the Siberian immediately removed his sheep-skin and put it on the shoulders of the naked man and took him along with to his home, but enroute he was fearing that his wife shall become angry to see another person/guest, as the food supply available was quite meagre.

As soon as they entered the house, what they saw, was that his wife was suffering from labour pains and she gave birth to a child and instantly died. The angel felt sorry and wondered how the child shall be brought up. Well he saw, the child was brought up by his relatives, better than his parents. Next the Siberian told him that let he be assisted by the angel in his job of making shoes, well the angel agreed and their income started becoming sizable. One day a customer prince came and ordered a shoe to last for atleast for three years, well you know shoes have less life in a rough and tough terrain like that of icy Siberia. But to the surprise and

annoyance of the customer, the angel had prepared a slipper; knowing that the amgry customer is going to die only next day. So the angel told the shoe maker that his job was done. "I have got answer to my question. That a man lives, not by parental affection only but also by an inborn sympathy of his fellow beings and other animal life." This feeling everyone of us has, inborn amongst us, but how far we are able to put it into practice in the present circumstances, when society is generating new problems during every day, week, month, year and life.

- 1) How can this be done? Many suggestions have been put through. Kindly add one more suggestion i.e; to set-up a workshop at Patna and other universities including in school and college levels in India and also suggest similar action for the remaining countries of the globe, which will be put through the seminar being held at Delhi in August, 1986, where people of all sections of society will be trained to put their good thoughts into action.
- 2) Some universities have not as yet introduced the subject of Sociology in their curricula like that of Kashmir University. However, on enquiry from Registrar, Kashmir University I have been given to understand and you will be happy to know that Sociology Department is being opened shortly. My two papers presented separately may please be read leisurely.
- 3) Please don't classify humanity into "Sociologists" and 'non-Sociologists'. We are human beings, let us be humanbeings in thought as well as in practice.
- 4) In Baghdad when Changez Khan and Mongols destroyed, the city, the Mosque comprised of three sections. One was prayer room, second was learning room, the third was action room, where boys were taught not only action sociology, but also to defend themselves when in trouble. Can we do it? I have my reservations.
- 5) When you tell a child not to do a particular thing, he tries to do it and also does it. Here Human Psychology is involved. Instead of telling the child not to do a thing, the alternative shall be to allow him to do the thing, of course keeping a watch on his safety and after he gets experience, he realises what he should do.

So is the case with elders also. Well, the process of allowing the society to do a thing is over, we are on the launching-pad

to do or die i.e; to be action sociologists or ACTOSOCIOLOGISTS. Thus 'Social Psychology' should form a subject of Action Sociology. How many of us are going to become like Mr. Pathak, could you spell out or at least make one like Mr. Pathak. Can you do it? I doubt. Alright, if you can do it, take up the challenge.

6) I would further suggest that Action Sociology should be taught in various disciplines and colleges like Medical, Engineering, Agriculture and the like; pertinent to the discipline concerned and the sociology courses be introduced in various schools and colleges as well at primary and secondary stages.

7) I once told Director UNICEF, Dr. Cousins that the foundation of our education policy has been laid by British Raj. There has been an organised conspiracy, the world over, to cut the roots of our basic education i.e; (education of British Colonies like India, Egypt etc.), when the purpose of earlier education was being served by Pattialas and Madrasas by teaching holy scriptures and sayings of saints and poetry of men like Kalidasa, Sadi, etc.

Books like 'Gulistan and Bostan' were taught in primary education in Kashmir. These books were considered to be Master-Pieces of 'Shiekh Sadi Shirazi' written about 700 years back; after he travelled various countries of the world for about 30 years and when he met various cross sections of people busy in action sociology and he also acted socially by living in Somnath Temple and other places. Similar Books of all time as classified by H.G. Wells are not being taught at present. It is suggested that such books should be got translated into various languages for laying foundation of basic purpose of education i.e; Build Moral and Practical attitude towards life. What has the National Education Policy to say about moral aspect, needs to be known through Prof. Saram of Ranchi University who has made a deep study of the same.

8) Moral education should be taught as a subject in Action Sociology.

9) I should also suggest that Sexology should also be included as a subject in Sociology, though it may sound premature.

10) Government needs to be approached to put a halt to the obscene scenes and violence being depicted on cinema and T.V. screens and also demoralising film songs, which have adverse effect on

the young minds.

11) Hotel/Taba food needs to be checked against virus infection with iron hand. Eatables & fruits sold on hand carts is generally unhygienic and substandard.

12) Increasing no. of street dogs and loose cattle on roads present a very bad management.

13) We need to be considerate to birds particularly, the migrant ones and pigeons.

14) Wild life and forests are our protection and life giving gifts of nature. These have to be protected at whatever cost.

15. Flowers, plants and trees respond to man's feelings and thoughts as also checked with electronic impulses. How can we help develop more gardens, orchards, forests?

16. There is foreign (Western) cultural invasion. Can we ever check it? Shall we loose our culture? How to treat it?

17. Blue films are being depicted/seen in families along with younger kids. How & why?

18. News of outside/inside pimps, surveying various towns/villages to attract innocent boys & girls is being heard and events are reported in papers, which need be checked even if a law and its enforcement need to be ensured.



## XI

# *Social Customs in Kashmir*

*Sociology in Action is reflected in the Customs of Kashmir as Under:-*

On the eve of ploughing, sowing or planting deweeding and harvesting and also for desilting of Irrigation Khuls or Construction of houses in Villages and on marriages and death ceremonies and on other functions, people, neighbours and relatives help each other by participating in and labouring for each other (known as Hallshri) with the result that the subject has to arrange hardly any labour on payment. This arrangement is bilateral, but due to onset of materialistic rat race, this spirit of sympathy is dying now fast.

On the eve of a death, the mourner has not to cook his food for three days, but has to be fed by neighbours or relatives along-with those sympathisers who choose to stay in his house and on the fourth day, the mourner invites all concerned for sending blessings to the deceased soul, serving them with a dinner. Similarly on the occasion of marriage, friends, relatives and neighbours (both male and female) share the joys in the same way as they share sorrows, thereby lightening the burden on the affected families.

During some calamity, every one feels it his duty to make efforts to see it removed and normalcy restored.

Beggars are attracted even from outside Kashmir, as they have experienced a good response from Kashmiris who are known to have sympathies for the sufferers. Those beggars find money to travel and stay in the Valley during summer/raising the number of tourists, who instead of spending, extract money from the locals, causing superficially negative effect but positive satisfaction and also invite blessings of Allah for the locals.

The plight of beggars could however be improved by providing them shelter and engaging them on jobs like making of domes-

tic articles like candles, willow work etc. On the marriage, death and other occasion of celebrations, there exists a custom of exchange of cash and gifts which again is a bilateral arrangement and this would help the concerned family to face the expenses in earlier days, when poverty was a common affair. Now this has resulted into extravagance and a poor relative or neighbour is put to an embarrassing position when a rich relative or neighbour tries to show his riches by offering bigger sums, which the poor man can not afford to return on the required occasion and results into borrowing and their after the repayment may render him poorer and cause sufferings.

This copying and maintaining of false prestige and showmanship has shown a negative result of, this once noble task due to misuse and ignorance of the motives behind it.

In Villages still the dead are bathed and graves are dug by the neighbours or relatives, while as in City this task is felt to be of a particular Class of people called "srangaris" and Mallas respectively.

Hospitals and Sick person's houses can be seen thronged by the friends, relatives and neighbours to enquire about the welfare of the sick. It is said that a person must visit hospital and the graveyard at least once a week, so that he thanks Allah for the gift of good health and the normal happy life.

Similarly when any house is on fire the neighbours and relatives help in the removal of belongings and saving of lives.

Mosques play an important role where Muslims of the locality gather five times a day wherever possible and thus provides an opportunity to enquire about each other's welfare and also reason for absence of any absent persons.

The best example of sympathy has been set by the Prophet Muhammad (P.B.H.) himself, other prophets and other humble souls and there are many directives in Quran and Hadith as well for having sympathy and for participating in each other's joys and sorrows.

When a guest enters a house he is treated very cordially and is necessarily entertained with "Kahwa" sugar or salt tea (typical for Kashmir only) Irrespective of the fact that the guest may refuse

the offer of the host.

Friday prayers in the Mosques provides opportunity of large gathering with group prayer and meeting with each other. Similarly, the gathering on various "Urs" i.e. annual celebrations of the sanits whose mausoleums are well maintained also attract people, Similar is the case with the Kashmir Pandits who gather at their temples on festivals. On Idd days and other occassions gifts in cash and kind are given to children, besides exchange of greetings and warm embraces between themselves. The send off and welcome home of Hajis Pilgrims to Mecca and Medina provide other opportunity of expressing love and enthusiasm of people. All such things make Kashmir Unique and unparallel, hospitable and invite tourists to enjoy nature besides hospitability of people in general.

Kashmiris are generally loveable and very keen observers of formalities regarding dealings among themselves and with guests and tourists, with whom they establish lasting friendships. It is hoped that such tendencies are encouraged and also publicised for encouaging the tourist trade and thereby strengthening the States economy.

Kashmir has rich history and the need of the hour is to make this known to people and students. This aspect needs to be given more attention, to enable the present generation to boost their morale so that they aspire for a more prosperous time and better future.

Moral-religious teachings stressing brother-hood of man and being kind to living creatures around need to be introduced in the Curriculum of the Schools, and which has almost vanished in the new Education System.





## XII

# Clean Environment Through Pour Flush Latrine.

## WHAT IS A POUR—FLUSH LATRINE ?

### INTRODUCTION

Use of pour-flush water seal latrines with a single leaching pit for disposal of human excreta was initiated in 1943 by All India Institute of Hygienic and Public Health, Calcutta. Earlier their use was only in the rural areas. During 1958, the offset double pit system was introduced. Since 1947, the system was adopted in the Urban Areas on a large scale, and nearly 400,000 units of this type have been constructed in India in different geological, hydrogeological and physical conditions and many of them are located in the densely populated areas.

### DESIGN

A pour-flush latrine consists of a squatting pan of a specific design (having a steep gradient at the bottom and particular depth) and trap having 20 mm water seal. This is so designed that the human excreta of one person can be flushed by pouring nearly 2 litres of water. The excreta is discharged into the leaching pits constructed in the house or compound or where it is not possible to do so for lack of space, the pit can be constructed under foot-path or street. The squatting pan is connected to the leaching pit through a pipe or covered drain. These pits are lined with honey comb brick work or open jointed stone, so as to allow liquid in the pits to percolate and gases to be absorbed into the soil, and at the same time preventing the pit from collapsing. The sludge gets digested and settles down gradually.

The pits are used alternately. When one pit is filled, it is stopped being used and the excreta is diverted to the second pit. The filled up pit is left un-used, and in about 24 months the contents become rich organic humus, innocuous, free of pathogen and smell. When convenient it is then ready to be put back into use when the second pit becomes full in its turn.

With simple care and cleaning by the household, the pour-flush latrine is a very satisfactory and hygienic sanitation system. This can be located inside the house, since water-seal prevents odour or nuisance.

### SIZE OF PIT

The size of leach pits depends on a number of factors such as soil characteristics, sub-soil water level, interval of cleaning, number of users and peoples food habits. The studies in India have indicated that under dry conditions per capita per year sludge contribution is about  $0.045 \text{ m}^3$ . The dimensions of the leaching pits for different number of users for three years are given below:—

No : of Users	Internal Diameter(mm)	Effective Depth(mm)
5	900	1,100
10	1,100	1,400
15	1,250	1,600

### SHAPE OF PIT

The shape of pits can be circular, rectangular or a combination of the two. However, circular pits should be constructed wherever feasible as these are more stable.

Leach pit configuration and materials used for its construction can readily be varied to suit the site conditions. In case of space constraints, an oval pit with a partition wall or pits of smaller diameter and higher depths could be provided.

## PIT LOCATION

In un-saturated zones where ground water-table is more than 2 metres below the bottom of pit and soil is of less than 1.0 mm effective size, leach pits could be located even at 3 metres away from wells or hand pumps used for domestic purposes. Where water-table is shallow and soil contains coarse sand or gravel, pollution travel can be checked by providing 500 mm thick envelope of fine sand (average size not more than 0.2 mm) all round the pits and sealing the bottom with clay or polythene sheet.

The distance between leaching pits and house foundation depends on the depth of leach pits, foundation depth of the building and its structural condition. However, for an average condition a distance of about 1 metre is enough.

## MAINTENANCE

Maintenance of pour-flush latrines is very easy and simple. Day-to-day maintenance consists only of washing the latrine floor and cleaning the pan. No other maintenance cost is needed. The cost of cleaning the pits can be covered by sale of humus obtained from the pits.

## PAN AND TRAP

The squatting pan and trap can be ceramic, fibre glass reinforced polyester plastic (GRP) or cement.

## COST

The cost of pour-flush latrine including super structure comes to about Rs. 2,500/- in Srinagar.

Material Required		Quantity	
S. No.	Material	Seat & pit Only (Including Drain)	Seat pit and Superstructure (Including Drain)
1.	Bricks	815 Nos :	1138 Nos.
2.	Sand	0.802 Cum	1.057 Cum.
3.	Bajri	0.211 Cum	0.211 Cum.
4.	Cement	3.5 Bags.	5.00 Bags
5.	6 mm Iron	16 Kgs.	16 Kgs.
6.	Timber / Kail		0.08 Cum.
	Budloo	—	0.0172 Cum
7.	C. G. I. Sheets	—	15 Kgs.
8.	2½" Hinges	—	2 Nos.
9.	2" Nails	—	1 Kg.
10.	Hooks	—	2 Nos
11.	W/C Pan & Water Seal	1 No:	1 No.

### DEMONSTRATION UNITS IN SRINAGAR CITY :

Twelve No. units constructed with the assistance of UNICEF in the premises of various house-holds in the project areas of Tanki-Pora Zaina-kadal and Lal Bazar—Fort areas are functioning successfully for the past 18 months.



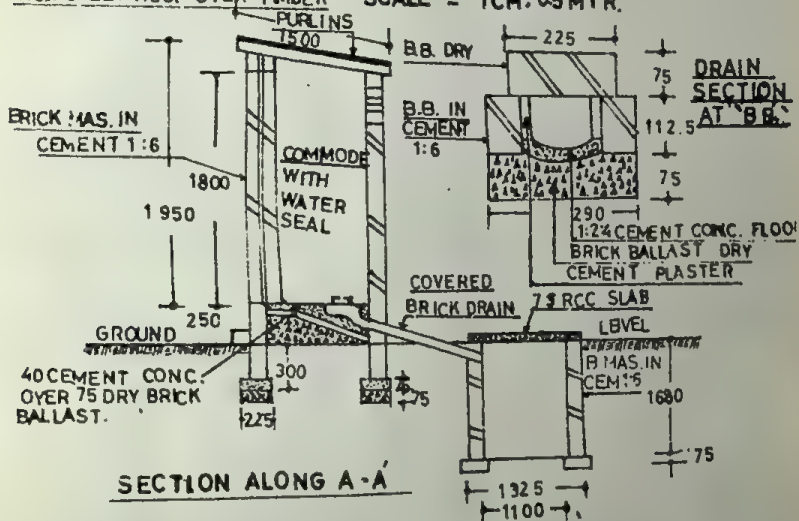
U.E.E. DEPTT:

J. S. K.

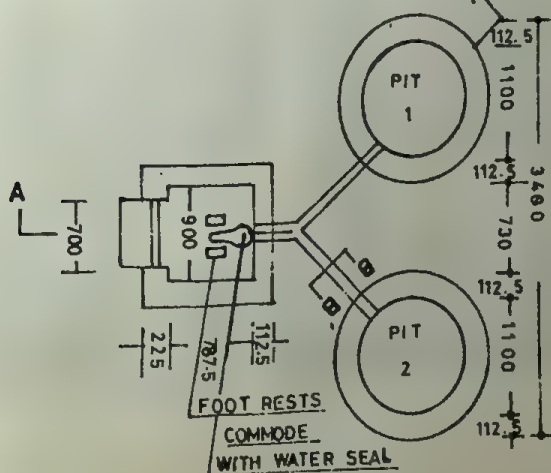
TYPICAL DESIGN OF A LOW COST  
SANITARY PIT TYPE LAVATORY.

C.G. SHEET ROOF OVER TIMBER

SCALE = 1CM:05MTR.



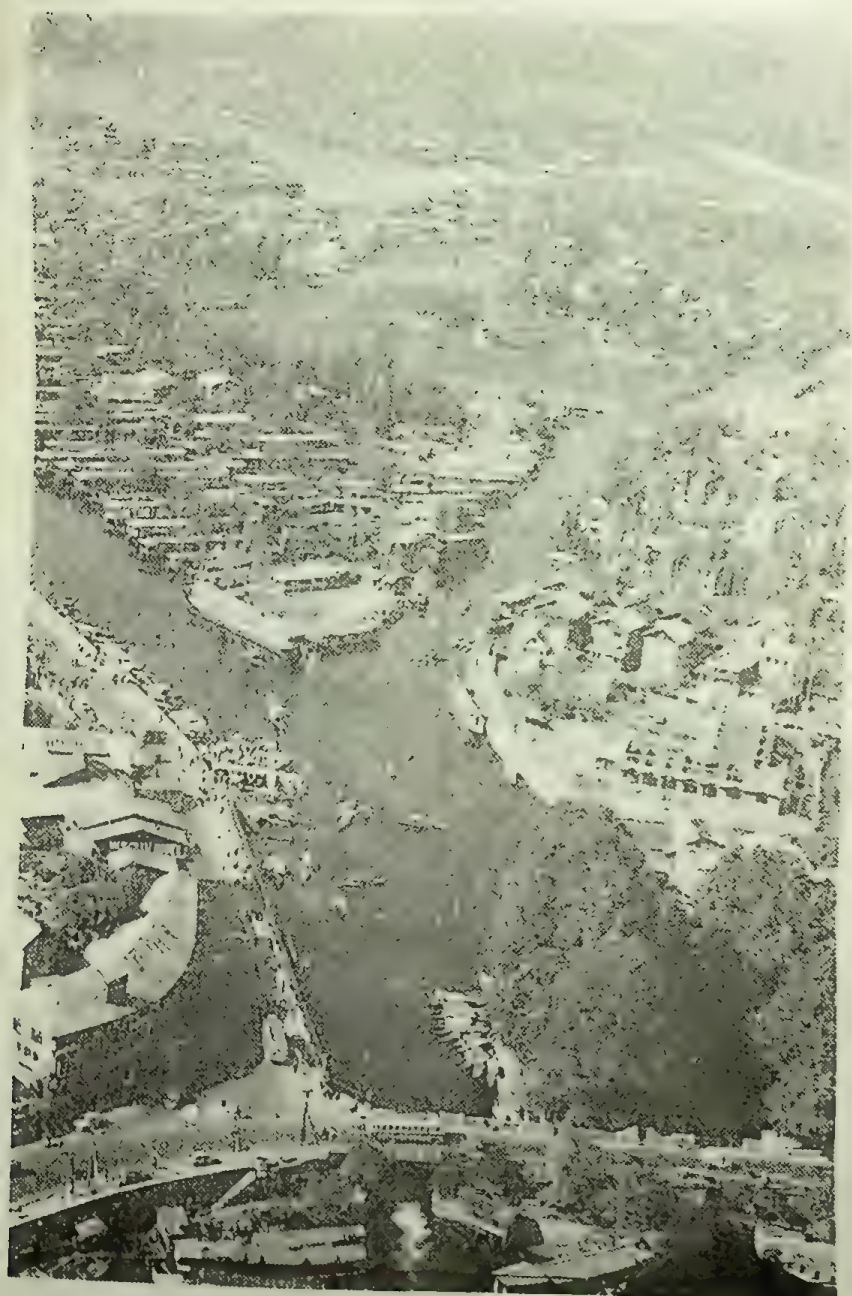
SECTION ALONG A-A



P L A N

NOTE:-

ALL DIMENSIONS  
IN MILLIMETRES



### XIII

## *“Agricultural Engineering For Hill Regions” Water Management For Hill Agriculture.*

J&K has been fortunate enough to have the purest natural water in the form of glaciers, lakes, gushing streams, springs and underground reservoirs. Most of the Agricultural land can be irrigated by gravity flow excepting certain areas where lift schemes are warranted. Thanks to its topography.

The Agriculture is as old as Man's history, Since he had to feed himself. He saw animals and birds of prey after he tasted the fruits grown on the trees, and for a change of taste he tried to kill and eat animals and birds.

The vegetarian diet of man must have persisted for a good period.

The developed Agriculture lands that have been passed on to us by our ancestors have very early history and it has taken centuries to have the top soil with rich deposits of alluvial soil and silt that travelled along the running waters and got deposited in the still waters of the paddy fields. This process is on and shall continue till the time permits.

Our ancestors have given considerable thought on harnessing the natural sources of water for agricultural purposes and have made stepped level terraces for proper irrigation and also for retention of water for the required periods in the paddy fields.

Paddy has been the main ingredient of the diet of Indians particularly in Kashmir and Punjab in the North, Bengal and Bihar in the east, Tamilnadu, Andhra Pradesh and Kerala in the South and also in U.P, M.P. Gujrat and Maharashtra. Though wheat and maize is also being used in other areas, which again needs proper irrigation, though for a smaller period.

There are still many areas left which lie on higher contours

than the neighbouring water-sources besides hilly areas like Yusmarg, surrounding Karewas of Charisharief and also adjoining areas of the River Jehlum .

Damming up of water has been practised and some projects are still in execution to make dry lands useful for Agriculture purposes and some lift irrigation schemes have been commissioned to irrigate the othere adjoining areas. Even tube well irrigation schemes are also on the anvil, for which full fledged divisions are functioning separately.

The facts and figures can be provided by the Irrigation Depts of J&K state, as to how much cultivable land has gravity irrigating facilities and for now much land lift irrigation caters the requirement and the remaining areas where tube wells have been provided or are in the execution state. There are still areas which depend on rains only, further programme of action also can be spelt out by them. The keen maintenance of the existing irrigation system also takes a good toll of time, energy and money and for that purpose the major canals are being looked after by Irrigation Deptt. and protection works are being looked after by Flood Control Wings. Some of the minor Khuls are being provided by Agriculture Deptt's engineering Wings, with some protection works and Crossings here and there.

Floods take a good toll of the existing facilities and nature is in constant action whenever there are torrential rains, causing floods or cloud bursts, bringing surprisingly gushing sheets of water along Stones, mud and uprooted trees, which cause clossal damage in certain destined areas, every year. For this unforeseen acts of nature, we have to be prepared with unforeseen funds and forces. But the question arises can we do it? The nature catches us many a time napping like the last years unprecedented floods particularly in Anantnag and Pulwama Districts. When the flood waters rose up to 4 to 5 feet above road level in the main town of the Anantnag District during night hours, rendering the neighbouring Deputy Commissinoer and the S.P. of the District to talk to each other from the roof tops of each others houses, as the town was cut off, having been submerged in man deep water.

Such a situation had arisen after few decades and earlier to



it there was talk of winding up of the Flood Control Deptt. But good sense prevailed due to a few warnings of the earlier years, that were communicated by nature and the Flood Control Deptt. Was allowed to exist with, a pat on its shoulders by Mr. Jagmohan the then Governor of J&K State.

What is required is that in hill areas besides harnessing the gifted waters by gravitation flow, and storage where-ever required and also to take countermeasures, to prevent seepage and erosion and sliding losses a good fool proof machinery has to be provided to face the challenges of nature during unfavourable weather conditions. In this connection foreign i.e. Russian, Chinese and Japanese experiences can be beneficial to us.

Thanks to the District Machinery, 28 NO. boats have been now manufactured by Anantnag Distt and for the satisfaction of the town people these are stationed by the road side now, so that people do not have to fear from such unwarranted floods here-after

Thanks also to the Prime Minister Mr. Rajiv Gandhi, for paying a detailed visit to Pulwama Distt. and also for providing Minor relief funds to both the Districts but the promised major relief funds are yet to come. We hope these will be on their way during the current financial year.

Thanking you and May God bless you

جهال ز برف اگر چند گاه سمين بود زمره آمده بگرفت جلّه توده سيم  
 زگار خانه كشمير يال بوقت بهار <sup>(شماره)</sup> باغ كرده نمه نقش خويشتن تسليم  
 هر سوخته جانيك بكمشيره در آيد گر مرغ كباب است كه بال و پر آيد  
 (ملاعدي)

كشميره مگور شك پري خانه چين است القصه بهشتيت كه بروني زمين است  
 (از سلاطين كشمير)

گردول غبار دار و دو طبع شوش است امروز روز باده و خرگاه آتش است  
 بطف باغ قدش قامت طويل كشيده بروي گل بچمن آتش خليل كشيده  
 دري چمن چه زني طعنه ام بخود دني چنانكه پير و رشم ميدهند و ميرويم  
 بهر يك گل صد جفائي خار ميآيد كشيده چو بدل خاري خلد ناچاره ميآيد كشيده  
 يك لاله رحي كه مهر افرازينست در مهر و فا چنانكه م بايد نيت  
 در باغ زمانه گل بے هست ولي آل گل كه از بوتى و فآيد نيت  
 آبش چو كلاب هر طرف گشته رواں خاش ز زمين جنت آورده نشان  
 گلزار وي ست نادر موسى كلیم بادش بمثال نفخه روح روان  
 در جستجو چوں تو طي کرده عالم مثل تو كس ندیده و نه از كسى شنیده

كان الكثر يوساكنها جنان عدن هي للمؤمنين  
 قد كتب الله على بابها واخلها كان من المؤمنين  
 ساكنها كان من المؤمنين





# KASHMIR







### **Biodata of Er. Mohammad Ashraf Fazili**

*Born in Srinagar Kashmir on 19-12-1942  
Studied in Jammu and Kashmir University, Civil  
Engineering in Annamalai University Madras (1959-  
63), joined Services PWD J&K State in 1963,  
served in various Wings of the Department as  
Assistant Engineer and Executive Engineer, Member  
J&K Graduate Engineers Association, Member Ins-  
titution of Engineers, Member Indian Road Cong-  
ress, Member National Geographical Society Wash-  
ington USA; travelled in India and has several  
publications to his Credit, relating primarily to  
Environmental improvement in Engineering Con-  
struction and also Islam and other Religions.*